TANDBERG

1700 MXP

- Highly integrated stand-alone executive video system
- Integrated 20” LCD wide screen
- Integrated High Definition camera
- Simple user interface
- Optional MultiSite capabilities
- Optional presentation and dual video stream capabilities
- Headset connection for privacy
- Standards-based embedded encryption (AES & DES)
- Protection against network interruptions with automatic Downspeeding and IPLR

USER GUIDE

Software version F5

D13954.01
JUNE 2006

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:

http://www.tandberg.net/support/documentation.php

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Agfa

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eCos, the Embedded Configurable Operating System.

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Patent Information

TANDBERG technology described in this manual is protected by one or more of the following U.S. Patent Nos. 5,584,077 - 5,838,664 - 5,600,646 - 7,010,119 - 7,034,860 and other patents are pending in the United States and/or other countries.

Operator Safety / Environmental Issues

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:

http://www.tandberg.net/support/documentation.php

For your own protection, please read the overleaf safety instructions completely, before operating the equipment and keep this manual for future reference. The information in this summary is intended for operators. Carefully observe all warnings, precautions and instructions both on the apparatus and in the operating instructions.

Safety Instructions

For your protection please read these safety instructions completely before you connect the equipment to the power source. Carefully observe all warnings, precautions and instructions both on the apparatus and in these operating instructions.

Retain this manual for future reference.

Water and Moisture

- Do not operate the apparatus under or near water – for example near a bathtub, kitchen sink, or laundry tub, in a wet basement, near a swimming pool or in other areas with high humidity.
- Never install jacks for communication cables in wet locations unless the jack is specifically designed for wet locations.
- Do not touch the product with wet hands.

Cleaning

- Unplug the apparatus from communication lines, mains power-outlet or any power source before cleaning or polishing. Do not use liquid cleaners or aerosol cleaners. Use a lint-free cloth lightly moistened with water for cleaning the exterior of the apparatus.
- Unplug the apparatus from communication lines before cleaning or polishing. Do not use liquid cleaners or aerosol cleaners. Use a lint-free cloth lightly moistened with water for cleaning the exterior of the apparatus.

Ventilation

- Do not block any of the ventilation openings of the apparatus. Never cover the slots and openings with a cloth or other material. Never install the apparatus near heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
- Do not place the product in direct sunlight or close to a surface directly heated by the sun.

Lightning

Never use this apparatus, or connect/disconnect communication cables or power cables during lightning storms.

Dust

Do not operate the apparatus in areas with high concentration of dust

Vibration

Do not operate the apparatus in areas with vibration or place it on an unstable surface.

Power Connection and Hazardous Voltage

- The product may have hazardous voltage inside. Never attempt to open this product, or any peripherals connected to the product, where this action requires a tool.
- This product should always be powered from an earthed power outlet.
- Never connect attached power supply cord to other products.
- In case any parts of the product has visual damage never attempt to connect mains power, or any other power source, before consulting service personnel
- The plug connecting the power cord to the product/power supply serves as the main disconnect device for this equipment. The power cord must always be easily accessible.
- Route the power cord so as to avoid it being walked on or pinched by items placed upon or against it. Pay particular attention to the plugs, receptacles and the point where the cord exits from the apparatus.
- Do not tug the power cord.
- If the provided plug does not fit into your outlet, consult an electrician.
- Never install cables, or any peripherals, without first unplugging the device from it's power source.
- Always use the power supply (AC–DC adaptor) provided with this product.
- Replace only with power supply (AC–DC adaptor) specified by TANDBERG.
- Never connect attached power supply (AC–DC adaptor) to other products.

Servicing

- Do not attempt to service the apparatus yourself as opening or removing covers may expose you to dangerous voltages or other hazards, and will void the warranty. Refer all servicing to qualified service personnel.
- Unplug the apparatus from its power source and refer servicing to qualified personnel under the following conditions:
  - If the power cord or plug is damaged or frayed.
  - If liquid has been spilled into the apparatus.
  - If objects have fallen into the apparatus.
  - If the apparatus has been exposed to rain or moisture
  - If the apparatus has been subjected to excessive shock by being dropped.
  - If the cabinet has been damaged.
  - If the apparatus seems to be overheated.
  - If the apparatus emits smoke or abnormal odor.
  - If the apparatus fails to operate in accordance with the operating instructions.

Accessories

Use only accessories specified by the manufacturer, or sold with the apparatus.

Communication Lines

Do not use communication equipment to report a gas leak in the vicinity of the leak.

Environmental Issues

Thank you for buying a product which contributes to a reduction in pollution, and thereby helps save the environment. Our products reduce the need for travel and transport and thereby reduce pollution. Our products have either none or few consumable parts (chemicals, toner, gas, paper). Our products are low energy consuming products.

TANDBERG's Environmental Policy

Environmental stewardship is important to TANDBERG's culture. As a global company with strong corporate values, TANDBERG is committed to following international environmental legislation and designing technologies that help companies, individuals and communities creatively address environmental challenges.

TANDBERG's environmental objectives are to:

- Develop products that reduce energy consumption, CO_2 emissions, and traffic congestion
- Provide products and services that improve quality of life for our customers
- Produce products that can be recycled or disposed of safely at the end of product life
- Comply with all relevant environmental legislation.

European Environmental Directives

As a manufacturer of electrical and electronic equipment TANDBERG is responsible for compliance with the requirements in the European Directives 2002/96/EC (WEEE) and 2002/95/EC (RoHS).

The primary aim of the WEEE Directive and RoHS Directive is to reduce the impact of disposal of electrical and electronic equipment at end-of-life. The WEEE Directive aims to reduce the amount of WEEE sent for disposal to landfill or incineration by requiring producers to arrange for collection and recycling. The RoHS Directive bans the use of certain heavy metals and brominated flame retardants to reduce the environmental impact of WEEE which is landfilled or incinerated.

TANDBERG has implemented necessary process changes to comply with the European RoHS Directive (2002/95/EC) and the European WEEE Directive (2002/96/EC).

Waste Handling

In order to avoid the dissemination of hazardous substances in our environment and to diminish the pressure on natural resources, we encourage you to use the appropriate take-back systems in your area. Those systems will reuse or recycle most of the materials of your end of life equipment in a sound way.

TANDBERG products put on the market after August 2005 are marked with a crossed-out wheelie bin symbol that invites you to use those take-back systems.

Please contact your local supplier, the regional waste administration or http://www.tandberg.net if you need more information on the collection and recycling system in your area.

Information for Recyclers

As part of compliance with the European WEEE Directive, TANDBERG provides recycling information on request for all types of new equipment put on the market in Europe after August 13th 2005.

Please contact TANDBERG and provide the following details for the product for which you would like to receive recycling information:

- Model number of TANDBERG product
- Your company's name
- Contact name
- Address
- Telephone number
- E-mail.

Digital User Guides

TANDBERG is pleased to announce that we have replaced the printed versions of our User Guides with a digital CD version. Instead of a range of different user manuals, there is now one CD – which can be used with all TANDBERG products – in a variety of languages. The environmental benefits of this are significant. The CDs are recyclable and the savings on paper are huge. A simple web-based search feature helps you directly access the information you need. In addition, the TANDBERG video systems now have an intuitive on-screen help function, which provides a range of useful features and tips. The contents of the CD can still be printed locally, whenever needed.

Finding the Information You Need

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:

http://www.tandberg.net/support/documentation.php

Thank you for choosing TANDBERG!

The TANDBERG 1700*MXP* has been designed to provide you with many years of safe, reliable operation.

Your approach to the 1700*MXP* documentation depends on what you want to do and how much you already know.

This User Guide has been divided into several separate sections. Each section provides different information.

Depending on your requirements and your familiarity with the 1700*MXP* and video meeting systems as such, you may find that you use some parts of this User Guide often and others not at all.

Our objective with this manual has been to address your goals and needs. Please let us know how well we succeeded!

TANDBERG 1700 MXP

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Getting Acquainted with the System

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:

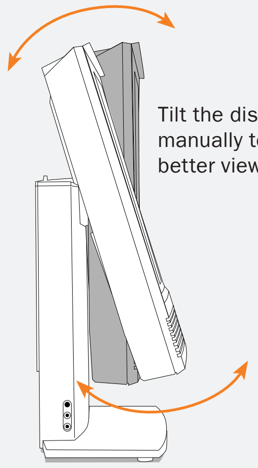
http://www.tandberg.net/support/documentation.php

Before you start using the system we recommend that you take your time to read through this section of the User Guide to get you up and going.

This section outlines how to connect the system and the basic operating principles. Important video and sound matters are also covered.

Preparing for Use

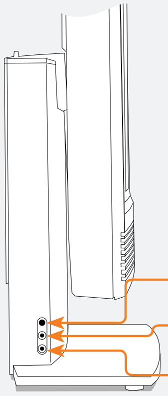
Viewing Angle Adjustment



Tilt the display manually to get a better viewing angle.

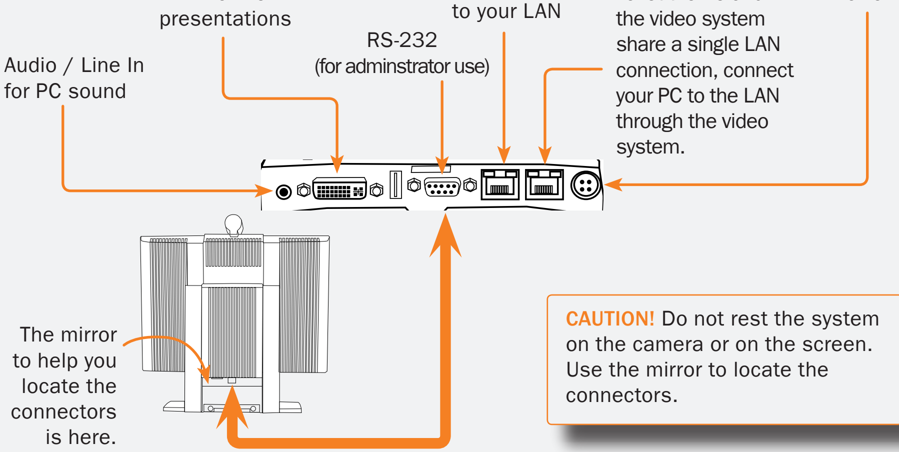
Connecting Headset

For more on the use of headset and microphone, see Sound Matters.



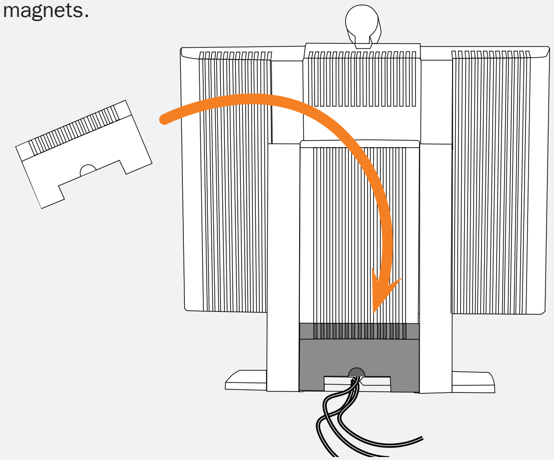
Connecting Cables

1 Connect cables as shown.



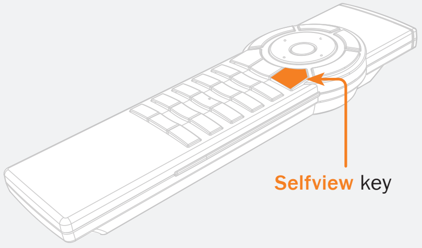
CAUTION! Do not rest the system on the camera or on the screen. Use the mirror to locate the connectors.

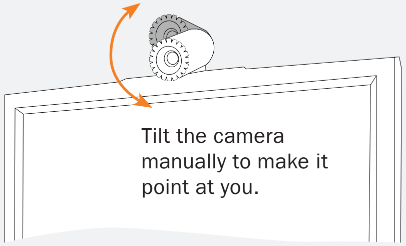
2 There is a lid in the accessories box. Mount the lid as shown. The lid will be held in place by magnets.



Camera Matters

The Lens Cap is held in place by a magnet.



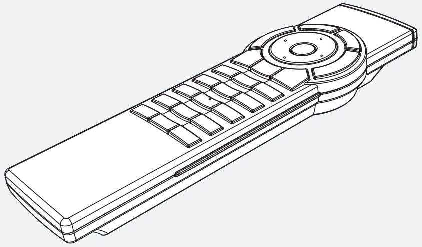


Some drawing details may differ from actual system.

Waking Up the System

Waking Up the System

1 Wake up the system by picking up the remote control.



2 The system will now produce the **Welcome** screen. The welcome screen presents the menu and displays your main camera image in the background (display main camera is the default setting).
The IP number and the system name are displayed in the upper right corner. The IP Number is the dial-in number of the system.

The welcome screen provides you with system information:

- System Name
- Your IP Address or IP Number
- Indications of Missed Calls or Warnings, if applicable.

You may customize the text on the welcome screen. See Menu Settings for how to edit the welcome text.

Even Incoming Calls Wake Up the System!

When the system is not in use, it is in standby mode and the screen is black. An incoming call or pressing any key on the remote control will also wake up the system. Restrictions apply when the Do not disturb function has been activated.

Remote Control Navigation Basics

Arrow keys. Navigate in the menu with the **Arrow** keys. The orange selector on screen shows the selected item. Press **OK** to select.

Cancel key. In the main menu, pressing **Cancel** will hide the menu. If the menu is hidden, bring it back with **OK**. In other menus, pressing **Cancel** takes you one step back. In an input field, pressing **Cancel** will delete characters/numbers to the left.

Back/Cancel key. The ⊗ icon corresponds to the **Cancel** key on the remote.

If the System Fails to Respond

- Make sure that the system is connected to mains.
- Make sure the Remote Control has working batteries.

The Remote Control Unit

Mic Off turns your microphone on and off.

Press **OK** to show the menu and select menu items.

Volume + and **–** adjusts the volume.

Layout key toggles between full screen and different display layouts.

Press the **Call** key to place a call.

Presets Not used on 1700 *MXP*.

The **Alphanumerical keypad** functions in the same manner as a cellular phone.

Snapshot takes a snapshot, but only during a call.

Presentation key switches to a predefined presentation source. If the **Presentation** key is held down for 1 second then the Presentation video sources menu will appear.

Arrow keys are used to navigate in the menus.

Use **Zoom +** and **–** to zoom the camera in and out.

Selfview displays your outgoing video. Press again to turn off.

Cancel takes you back one step in the menu system, i.e. to leave a menu undoing any changes. Use **Cancel** to delete characters in an input field. Press and hold the **Cancel** key for 1 second to close the menu.

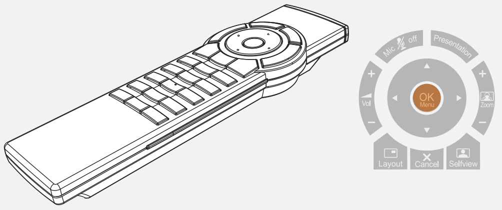
Use the **End Call** key to end the current call. Pressing this key when not in a call will place the system in Standby mode.

Use the **Phone Book** to store and recall video contacts for easy placement of calls.

Press **Touch tones** when you are in a call and need to dial extension numbers etc. Press the **OK** button to exit **Touch tones**.

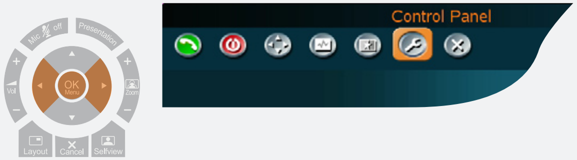
Basic Menu Navigation Rules

1 Pick up the remote control to wake up the system or press OK to display the main menu line.

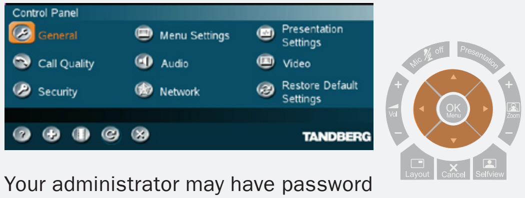


2 The menu line will be displayed.

3 Use the horizontal Arrow keys to navigate in the menu line and press OK to enter a submenu.

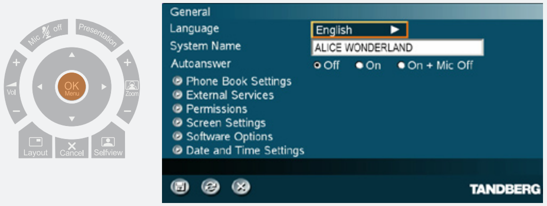


4 Use the Arrow keys to navigate in the submenu.

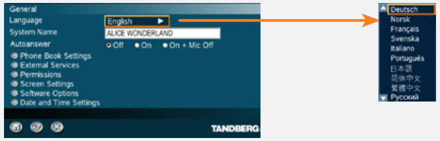


Note! Your administrator may have password protected the Control Panel. However, this does not change the principles of operation explained here.

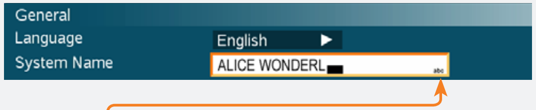
5 Once a topic has been selected, press OK to enter that topic. Navigate as described above.



6 To go deeper into the menu structure, all menus with an arrow appended allow you to enter a submenu by means of the OK or Right Arrow key. Navigate as before.



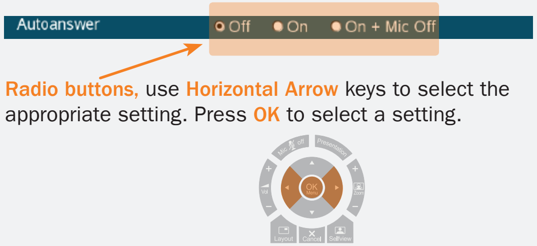
Entering Alphanumeric Information



This little icon (abc) indicates that the system expects alphanumeric text entry. Consequently, the (otherwise) numerical keypad is set to alphanumeric mode. Press # to switch between upper case (ABC) and lower case (abc) letters. Press and hold # to switch between purely numerical (123) and alphanumerical (abc/ABC) functionality.

More on this can be found in Numerical Keypad Features.

Editing a Setting Using Radio Buttons



Radio buttons, use Horizontal Arrow keys to select the appropriate setting. Press OK to select a setting.

There are Three Ways to Leave a Menu

Cancel. Select this icon to leave menu undoing any changes.

Select this icon to Restore Default Settings.

Save. Select this icon and press OK to leave the menu putting changes into effect.

About Camera Adjustments

The focus of the camera is adjusted manually by rotating the ring as pointed out in Preparing for Use.

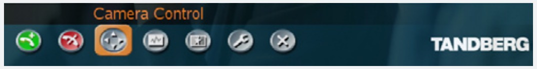
The camera can be tilted manually as explained on the same page.

This leaves us with the following adjustments carried out through the menu system:

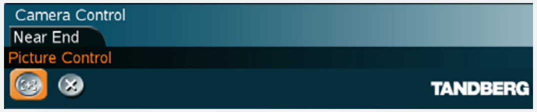
- Whitebalance
- Brightness
- Backlight Compensation

Adjusting the Camera

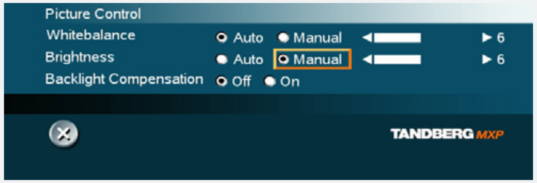
1. Press **OK** and navigate to the **Camera Control** icon.



2. Click **OK** to enter the **Picture Control** options and navigate to the **Picture Control** icon.



3. Click **OK** and use the **Arrow** keys to navigate and adjust or select the settings available. Click **OK** when satisfied, navigate to any other settings in need of adjustment and repeat the procedure. Exit the menu in the usual manner.



The icons Appearing on the Screen

About the Icons

To help you immediately realise the present status of important actions, states, and events taking place, there is a number of icons appearing on the screen, whenever applicable.

Some of these may be turned off, if you so wish. This is done from the Control Panel > Icons. Observe that the Control Panel settings may have been password protected by your system administrator.

Microphone Off

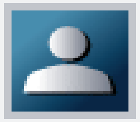
This indicator is shown when the microphone is turned off. Press the **Mic off** button of the remote control to toggle between **On** and **Off**.

Volume Off

This indicator is shown when the volume is turned off. Press **Volume +** to turn the volume back on.

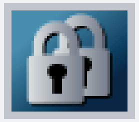
On Air

When you have the floor in a multisite conference this is indicated by the On Air icon.



Secure Conference, AES

This double padlock indicator is shown when AES encryption (Secure Conference) is active.



Secure Conference, DES

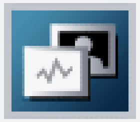
This padlock indicator is shown when DES encryption (Secure Conference) is active.

Not Secure Conference

This open padlock indicator is shown during the initialization phase for AES or DES encryption. During this period the call is not secure.

Dual Video Stream

Dual video stream activated is indicated by this icon:



Telephone

This indicator is shown when there also are telephone only participants in a multisite conference. Indications are given for 1, 2, 3 or more than 3 participants. Icons turn green when a telephone participant has the floor.

Bad Network

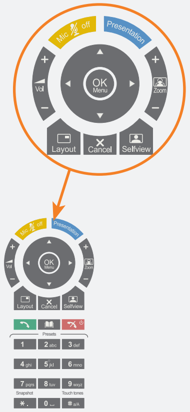
This indicator appears if the system detects network anomalies like packet loss, jitter etc., during a call. Open the menu by pressing the **OK/Menu** button and select the warnings icon too see details.

Selfview

About Selfview

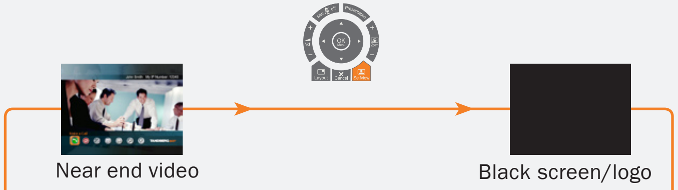
In this User Guide, the term **Selfview** means the outgoing image. In a normal call using the main camera, this is the image of yourself. The **Selfview** button toggles the images between Far End, Selfview and Dual Video Stream (if applicable).

Navigation Tools

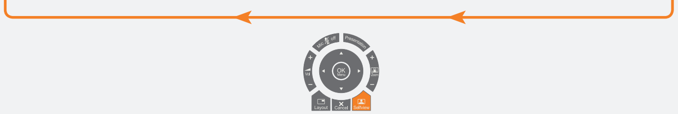


The Remote Control keypanel

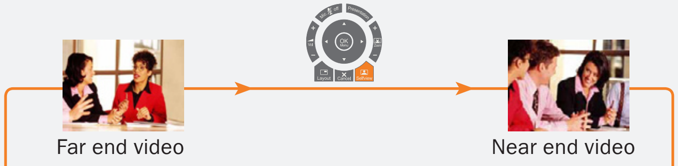
Using Selfview Outside a Call



Pressing the **Selfview** key will switch between the near end video and a black screen (or a logo if uploaded) on the main monitor. How to upload a logo is described in [Web Snapshot.]

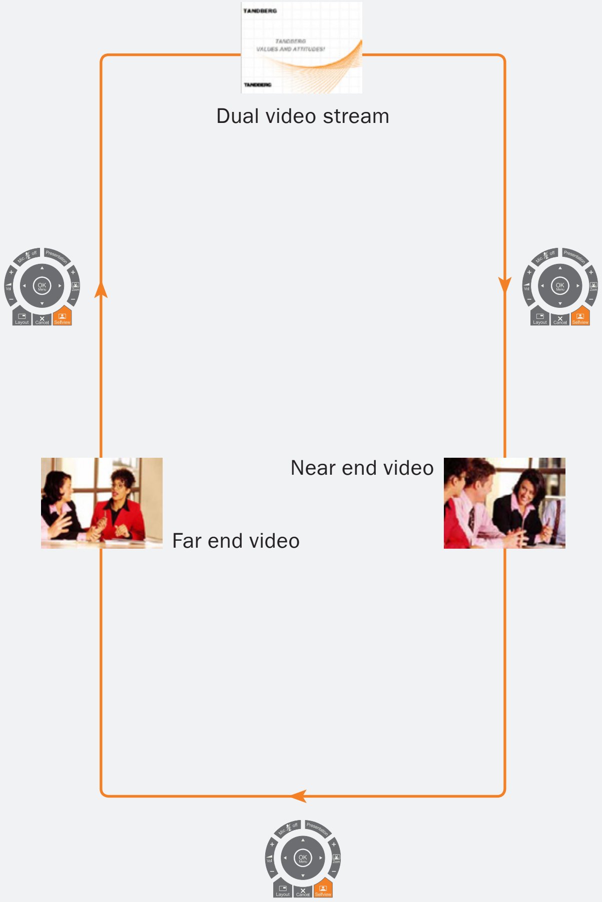


Using Selfview in a Point-to-Point Call



In a point to point call, press the **Selfview** key once to switch from far end video to near end video to see a full screen picture of the outgoing video. Press **Selfview** again to go back to normal.

Using Selfview in a Point-to-Point Call with Dual Video Stream



In a point to point call with a dual video stream, the duo video is displayed in the big picture. Press the **Selfview** button to toggle to the **Near End** picture, then the **Far End** picture, and finally back to the **Dual Video Stream**.

Screen Layout

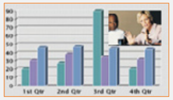
About Screen Layout

The layout of the screen can either be shown as **Picture In Picture** (**PIP**) or **Picture Outside Picture** (POP) when displaying more than one video image. For widescreen monitors, **POP** is recommended. The behavior of the **Layout** key depends on the **Picture Layout** setting in Control Panel > Screen Settings.

Picture in Picture

When **Picture Layout** is set to **PIP**, the **Layout** key makes it possible to see a second image in a smaller view in one of the corners of the screen. The second image will be placed on top of the main image. You are free to choose in which corner the second image is to be displayed.

Picture-in-Picture



Picture outside Picture

When **Picture Layout** is set to **POP**, the **Layout** key makes it possible to see up to three images in a composition optimized for wide screens. The second image can be displayed either as a side-by-side the main image (1+1) or smaller images next to the main image (1+2 and 1+3).

Press the **Layout** button once to get side-by-side view (1+1). Press again to get the layouts 1+2 and 1+3, and finally go back to full screen view. You can also go back to full screen directly by pressing and holding **Layout** for 1 second.

Picture-outside-Picture

Auto Layout

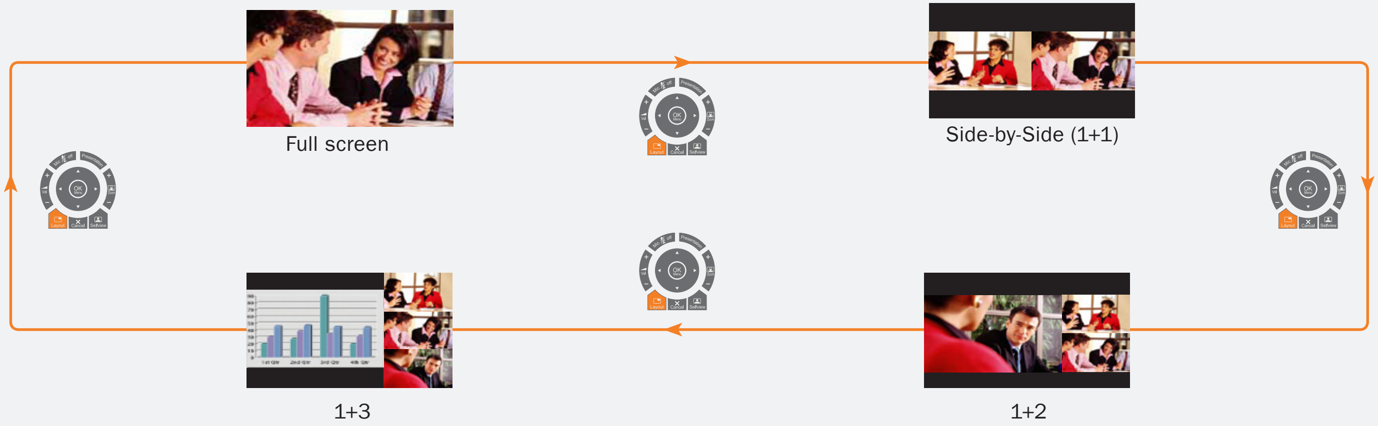
The system will automatically choose the best layout for your call. You can, however, always change layout manually with the **Layout** key. **Auto Layout** applies when you open or close a dual video stream, or add or disconnect participants.

Auto Layout also includes automatic PIP. That implies that PIP will be shown when suitable, e.g. to display selfview when you move your near end camera. The automatic PIP times out after a couple of seconds.

OFF means no automatic layout changes during a call – you must manually control the images with the **Layout** key. **Auto Layout** is default **ON**. To turn **Auto Layout OFF**, go to Control Panel > Screen Settings.

Using the Remote Control to Determine the Screen Layout

Note! Depending on the number of participants in your video meeting and whether you use a dual video stream or not, some of the locations of the screen layouts may be empty. The actual positioning of each picture as you press the **Layout** key, may vary from the above examples.



Local PC Display

About Local PC Display

When using the screen as your PC screen, we recommend that you set Local PC Display to ON – see Screen Settings in Control Panel. This implies that you can display your PC locally while having a video-conference, and you can keep on working without having the Far End party viewing your PC screen.

We also recommend to have the Auto Layout setting set to ON (default) to get a suitable layout when toggling from Local PC Display mode to standard conference mode.

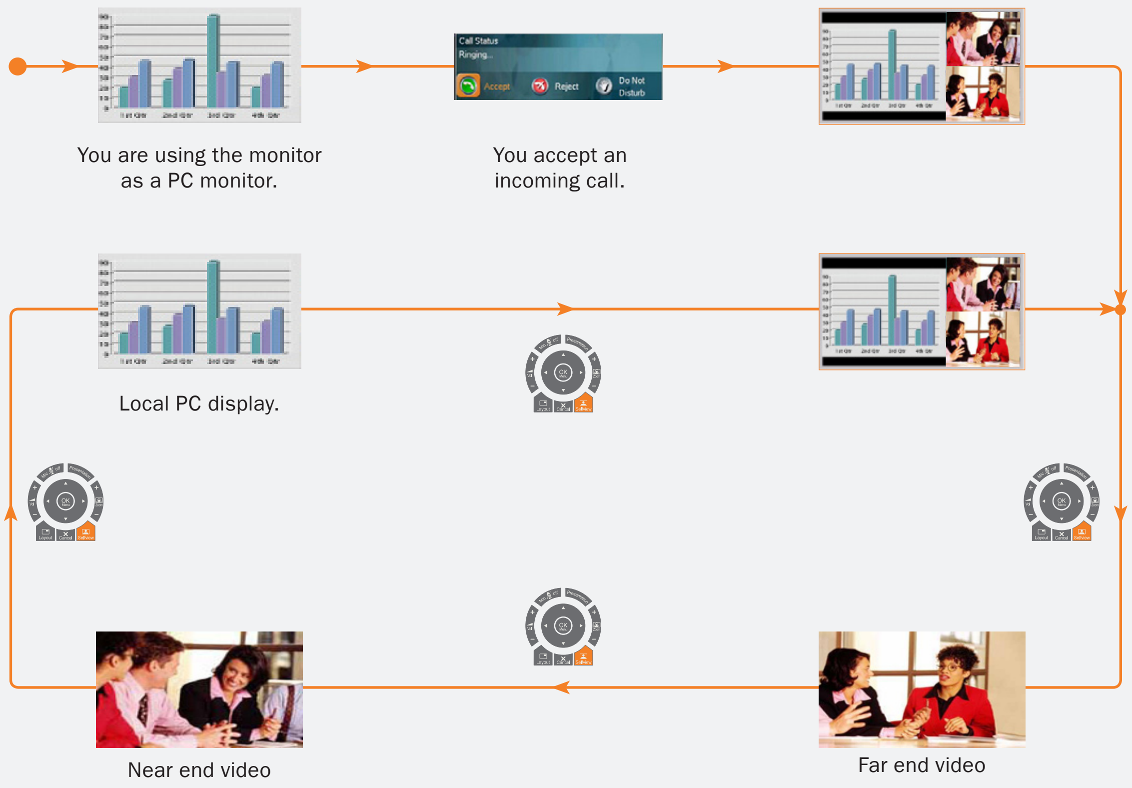
Use the Selfview key to toggle between Local PC Display mode and standard videoconference mode. An indicator tells you that your PC image is displayed locally.

Example: You are using the system as a PC and get an incoming call.

When the setting Use Screen as Local PC monitor is ON, you will keep your PC image displayed locally and the incoming call pops up in a PIP or as smaller images in a 1+3 layout, depending on your system. You will see Local PC displayed in the big picture and Far End and/or Near End (yourself) displayed in smaller pictures.

Press the Selfview key to switch to standard conference mode. The Local PC image is no longer displayed and Far End is displayed in the big picture or full screen. Press Selfview again to see Near End. Pressing Selfview a third time will bring back the Local PC display mode.

Using the Display as Local PC Display



Sound Matters

Mic Off

To mute the microphone during a call, press the Mic Off button. An on-screen indicator appears in the upper right corner when the microphone is OFF. In a call, if audio is detected, the on-screen symbol will start to flash. Pressing the Mic Off button one more time will activate the microphone again.

Note! Mic Off will mute all microphone inputs, but it will not mute audio from any AUX and VCR inputs.

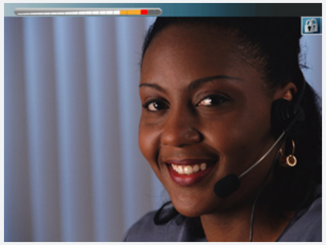
When an incoming call is answered, the microphone may be in the off state because the Auto Answer setting is On+Mic Off, see Control Panel > Auto Answer. The icon will flash once you start speaking. Remember to turn on the microphone before a meeting.

Mic Off key

This icon indicates that the microphone has been turned off.

Adjusting the Volume

Press the Volume keys to adjust the volume level. An on-screen indicator will show the current level. When the volume bar changes colour to yellow and red, the sound is compressed to avoid distortion.



Headset Recommendations

- Standard 3.5mm jack for microphone input
- Standard 3.5mm stereo jack for earphone output.
- Earphone Frequency Range: Min. 100–8000 Hz (100–16000 Hz recommended)
- Mic. Frequency Range: Min. 100–8000 Hz (100–16000 Hz recommended)
- Earphone impedance: 16–500 Ω
- Microphone sensitivity: –39 dBV/Pa ± 5 dB
- Phantom voltage for microphone: 5 Vdc
- Microphone load impedance: 2.2 kΩ

Most standard PC-headsets will work. The headset may have integrated volume control and/or a noise cancelling microphone without the risk of degrading the sound.

Level settings can be made by means of the Control Panel, see Level Settings.

Loudspeakers or Headset?

Your system comes with built-in loudspeakers and microphones. In addition you may connect a headset, with or without microphone, to the system. Once you connect a headset and/or a microphone to the system, this will be detected automatically.

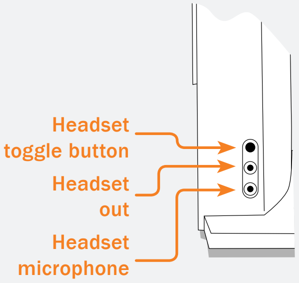
If you use…	…and then connect…	…you will end up using
Internal loudspeaker Internal microphone	the headset only	Headset loudspeaker Internal microphone
Headset loudspeaker Internal microphone	the microphone of the headset	Headset loudspeaker Headset microphone
Internal loudspeaker Internal microphone	the microphone of the headset only	Internal loudspeaker Internal microphone

Using the Internal / Headset Switch

There are connectors for the headset and the headset-microphone on the left side of the socket, when viewed from the front – see Fig.

The little switch is used to toggle between the system's own speakers/microphone and the headset's.

- If you connect headset only (no microphone) the toggling will be between the systems's loudspeakers and the headset's.
- If you connect headset and mic., the toggling will be between the system's speakers/microphone and the headset's.
- If you connect a microphone only (no headset), nothing will happen when you press the switch.



Numerical Keypad Features

What Happens When You Press a Key on the Numerical Keypad?

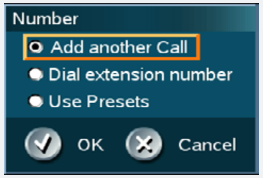
That depends on the context. The following guidelines apply:

- Pressing a Numerical key when outside a call will produce the Call menu.
- Once positioned inside an entry field requiring alphanumeric entries, the system automatically goes to ABC mode. Entering letters is similar to a cellular phone – see right.
- Once positioned inside an entry field requiring numerical entries, the system automatically switches to 123 mode allowing numbers to be dialled with the Numerical keys as usual.

Using the Number Key Settings

When Number Key Settings is set to Manual (Control Panel > Menu Settings) a menu will be displayed once you press a numerical key inside a call.

- Select Add another Call to add participants
- Select Dial Extension Number to dial touch tones
- Select Use Presets to have the system interpret the number as camera preset addressing.

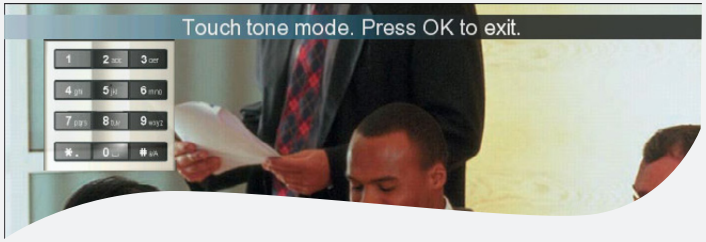


If you are a power user, you may not want this menu to appear. It may therefore be set to your preferred setting in the Control Panel > Menu Settings.

Observe that the Control Panel may have been password protected by your adminstrator.

Touch Tones

To activate dialling touch tones during a call, press the Touch tones button. An indicator will let you know that Touch tones are enabled. Finish with OK to exit Touch tone mode.



Using the Numerical Keypad in Alphanumerical Mode

Whenever alphanumerical entries are expected by the system, a small ABC appears in the right lower corner of the entry field.

In this mode, entries from the Numerical keypad are automatically interpreted as alphanumeric entries in the same way as on a cellular phone.

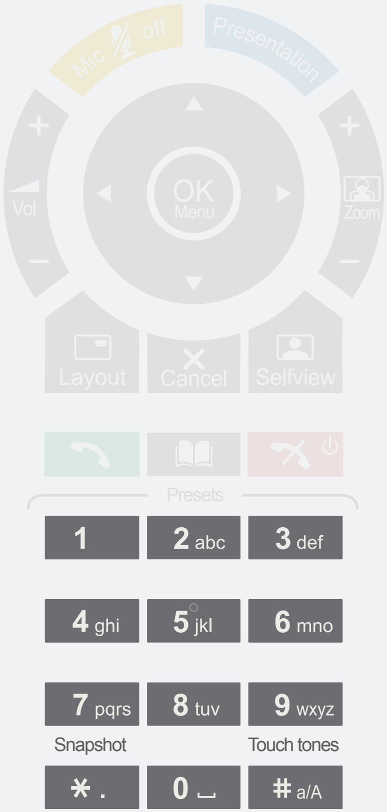
Guidelines:

- Press the key that corresponds to the required letter.
- Press the key as many times as needed to access the correct letter.
- Change to lower or back to upper case letters with the # a/A key, and space with the 0 _ key.
- To write numbers in a text input field, repeatedly press the corresponding key a number of times until the digit appears.

Example: How do I write `System 123` in the System Name input field (in General in Administrator Settings)?

Do as follows:

1. Press the 7-key four times to get an `S`.
2. Press the #-key once to switch between upper case and lower case letters.
3. Press the 9-key three times to get a `y`.
4. Press the 7-key four times to get an `s`.
5. Press the 8-key once to get a `t`.
6. Press the 3-key twice to get an `e`.
7. Press the 6-key once to get an `m`.
8. Press the 0-key once to get space.
9. Press the 1-key three times to get a `1`.
10. Press the 2-key four times to get a `2`.
11. Press the 3-key four times to get a `3`.



Standby

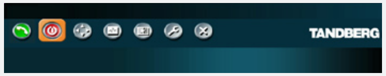
About Standby

The system will automatically go to **Standby Mode** when it is not in use. In **Standby Mode**, the screen(s) will turn black. It is, however, still possible to receive incoming calls.

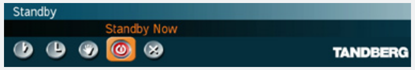
The **Standby Mode** of the system should be enabled if the system is to be left idle.

To Enable Immediate Standby Mode

1. Press **OK** and navigate to the **Standby** icon. Select **Standby** from the menu and click **OK**.



2. Navigate to the **Standby now** icon and click **OK**.



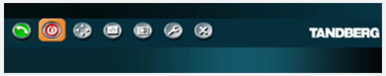
3. The system will now enter **Standby Mode** immediately.

Leaving Standby Mode

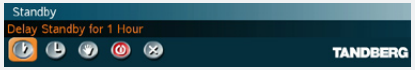
When the system is in **Standby**, pick up the remote control, or press any of its keys to activate the system again.

To Enable Delay Standby Mode for 1 Hour

1. Press **OK/Menu** and navigate to the **Standby** icon. Select **Standby** from the menu and click **OK**.



2. Navigate to the **Delay Standby for 1 hour** icon and click **OK**.



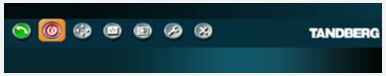
3. The system will enter **Standby Mode** in 1 hour from now.

Note! Standby is not activated by switching off the power to the monitor(s) (some systems come with monitors that are not possible to switch off.).

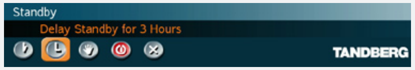
Tip! If the system is set for **Use screen as Local PC monitor**, see Control Panel > Screen Settings, the **Standby** mode will be disabled when the codec detects a video signal from the PC. When the PC video signal no longer is detected, the standby mode will be re-enabled.

To Enable Delay Standby Mode for 3 Hours

1. Press **OK/Menu** and navigate to the **Standby** icon. Select **Standby** from the menu and click **OK**.



2. Navigate to the **Delay Standby for 3 hours** icon and click **OK**.



3. The system will enter **Standby Mode** in 3 hours from now.

Call Handling

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:

http://www.tandberg.net/support/documentation.php

Your TANDBERG 1700 *MXP* can do point-to-point video and telephone calls as well as video conferences with up to 4 video calls and 3 telephone calls (this is called MultiSite).

This section of the User Guide outlines the call handling procedures and features.

Please observe that some topics covered apply to point-to-point call handling only, while others apply to MultiSite call handling only. In addition some apply to both situations. These are all covered in this section.

Access Codes

About Access Codes

Your TANDBERG system may, or may not, be set up to require Access Codes to be typed in before a call can be made.

Access Codes are used for two things; call restrictions and billing opportunities.

Call restrictions may be applied by installing a file of valid access codes that must be entered to permit calls to be made. This installation is typically made from TMS (TANDBERG Management Suite – available separately).

Billing opportunities. Assume that an access code is needed whenever you make a call. Your company may have different access codes for the different clients of your company.

Then, the access code used may be picked up by TMS to generate statistics on who is calling whom, when, and for how long time.

This information may later form the basis for billing clients or departments. Observe that in this case there will be no strict need for installing an Access Code file on your system – TMS will still have access to the codes you have assigned to the calls. In this case any code entered will be considered valid.

Of course, the two may be combined to form a *billing system with call restrictions.* This will then become a system that acts as forced billing.

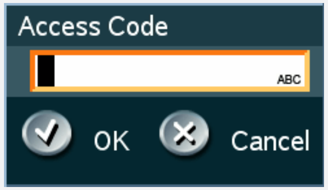
Access Codes can be up to 16 characters long.

The Access Codes feature is activated in the Security Settings menu of the Control Panel. The activation/deactivation of the feature may be password protected by your System Administrator. If in doubt, consult your System Administrator.

Making Calls when Prompted for an Access Code

1. Prepare to make a call
   – by dialling manually
   – by using the phone book

2. When prompted for an Access Code, enter the code using the **Numerical** keypad, which now will be set to **ABC** mode automatically.



3. Proceed with your calling as described throughout this section of the User Guide.

Making Point-to-Point Video & Telephone Calls Manually

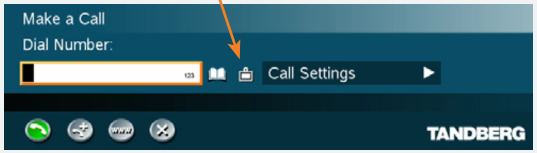
Making Video Calls Manually

1 Select **Make a Call** from the menu,

or, press the green **Call** key on the remote control.

The TANDBERG system can make both Video calls and Telephone calls. Telephone calls over IP may require additional hardware and infrastructure. If in doubt contact your administrator or your TANDBERG representative.

2 Make sure **Video Call** is selected (as shown here). If not, see below for details.



3 Enter the dial number manually using the **Numerical Keypad.**

When dialling manually, observe the guidelines given in Numerical Keypad Features. Use * as separator in IP addresses. If a system is registered on a gatekeeper or border controller with DNS support, there are several ways to call into the system:

- <IP address>
- <E.164>
- <H.323 ID>
- <H.323 ID>@<domain>
- <E.164>@<domain>

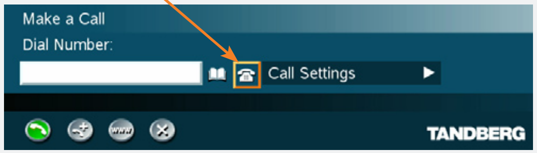
See H.323 Settings for details

4 Do one of three things:

- Place the call by pressing **OK** so that the **Place Call** icon is selected and press **OK** once again
- Use the **Arrow** keys on the remote control to select the **Place Call** icon and press **OK**
- Press the green **Call** key on the remote control.

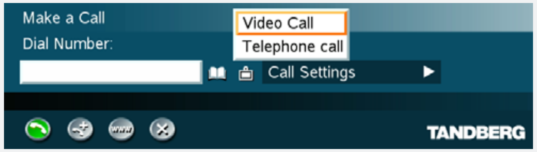
Making Telephone Calls Manually

Do as described above for a video call, but make sure **Telephone Call** is selected.



Choosing Between Video and Telephone Call

Use the **Arrow** keys, navigate to the **Call Type** icon, and click **OK**. Select the type of call and click **OK** to exit the submenu.



Making Point-to-Point Calls Using the Phone Book

About the Phone Book

Using the Phone Book is time saving and prevents you from inadvertently calling the wrong number. The contacts are sorted alphabetically. The contact names are displayed in the list and the telephone or video numbers of the selected contact will be displayed at the bottom line.

When selecting Phone Book the Phone Book opens showing the folders Placed Calls, Missed Calls, Received Calls and My Contacts. Global Contacts (if applicable), will be listed below these folders. See also Phone Book Features.

System Asks for Access Code?

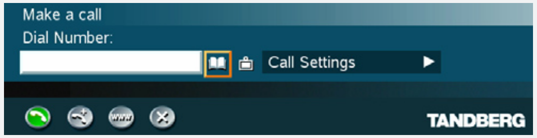
See Access Codes for details!

Making Calls Using the Phone Book

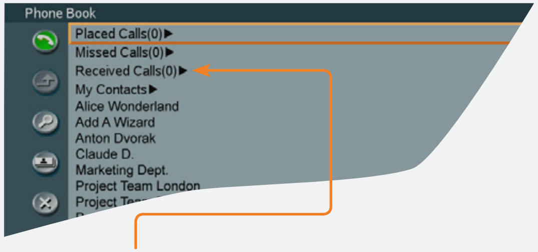
1 Select Make a Call from the menu,

or, press the green Call key on the remote control.

2 Use the Cursor keys to navigate to the Phone Book icon and press OK on the remote control, or just press the Phone Book button on the remote control.

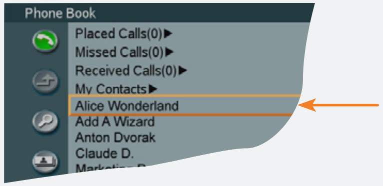


3 Use the Cursor keys to navigate in the list.



Any entry with an arrow appended is expandable using the Arrow keys. Navigate in the expanded list using the Arrow keys as usual. You may key in letters to navigate in the list – see also Phone Book Features for details on the use of the Phone Book.

4 Once you have located whom to call select the corresponding entry by means of the Arrow keys.



Indicates selected entry.

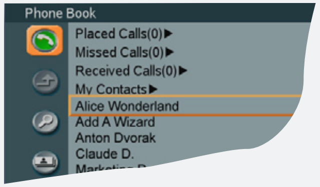
5 Press the green **Call Now** key ( ) on the remote control,

or...

press the Left Arrow key to select the Call Now icon, followed by OK

or...

just hit the OK key whilst the entry is selected.



6 The name of the selected entry will now appear on the screen. Call settings will be set as specified with this particular entry.

7 Wait for the call to connect.

The call will be a video or a telephone call depending on the settings for the entry selected.

Making Calls with Two Parties at the Same Time (Non-MultiSite Systems Only)

About this Feature

Non-MultiSite equipped systems may call another party when already in a call. Thus you may have two calls running at the same time. Note that the two parties will not be able to communicate with each other. The feature requires H.323 or SIP to work.

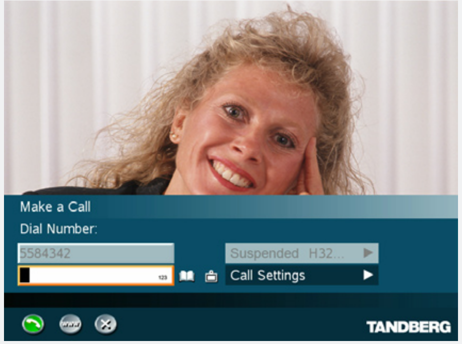
When you make an additional call, the party called first will be temporarily suspended. The message "Please wait" will appear on the screen of the party suspended.

You may switch between the two parties you have called by navigating to the lowermost line in the main menu as shown in the Figs. to the right.

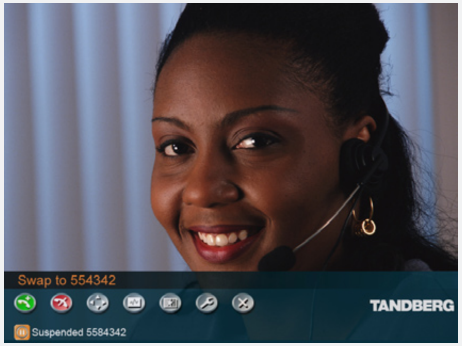
Calling Two Parties Simultaneously

1. Assuming you already are in an H.323 or a SIP call, press the Call button on the remote control. Select Add another Call from the menu. The call currently active will be temporarily Suspended, which can be seen from the lowermost line of the screen.

2. Call the second party manually or by means of the phone book in the usual manner. Observe that this must also be an H.323 or a SIP call.



3. To switch between the two parties, use the Suspended menu line at the bottom of the screen. This line contains the number of the party currently Suspended.



4. To end any or both of the calls, click the End Call button on the remote control. You will have the option of navigating to any of the numbers called to terminate that call or to press the End Call again to terminate both calls simultaneously.

The features described here applies to systems without the optional Multi-Site feature installed.

Note! The presence of MultiSite will disable these features.

Transfer of a SIP Call (Non-MultiSite Systems Only)

About Transfer

During a call you may transfer the other party to a third party and disconnect yourself from the call.

Call Transfer comes in two flavours; Consultative and Unattended Transfer.

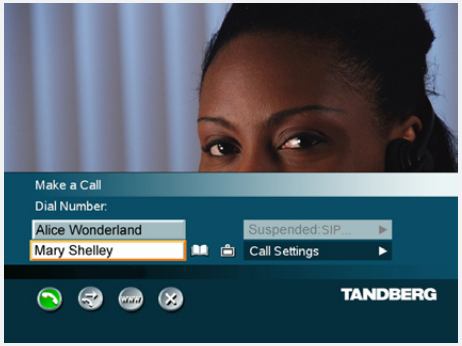
Consultative transfer takes place when you have called two parties at the same time (as discussed on the previous page) and decide that you want to connect the two, while at the same time disconnecting yourself.

Unattended transfer takes place when you transfer a call to someone else without already being in a video call with that party.

Call Transfer applies to SIP calls only!

Consultative Transfer

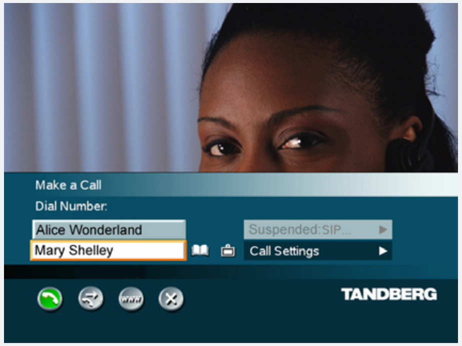
1. Call two parties at the same time as outlined on the previous page. Both calls must be of SIP type.



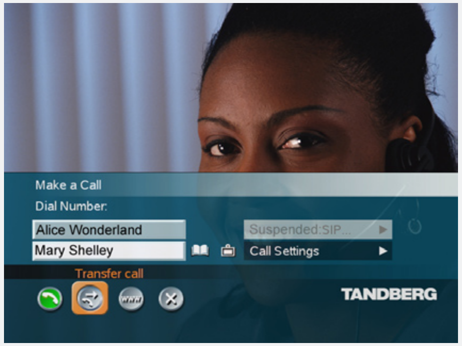
2. To connect the two parties together, thereby disconnecting yourself, click OK to display the Calll menu (which now will have a slightly different look), navigate down to the Transfer Call icon, and click OK.

Unattended Transfer

1. Call two parties at the same time as outlined on the previous page. Both calls must be of SIP type.



2. To connect the two parties together, navigate down to the Transfer Call icon and click OK. The two will be connected and you will be disconnected.



The features described here applies to systems without the optional MultiSite feature installed.

Note! The presence of MultiSite will disable these features.

MultiSite Conferences – Adding Calls

About MultiSite Conferences

Conference systems with built-in MultiSite can handle up to 4 IP video calls and 3 IP telephone calls simultaneously.

You may set up a video meeting with many participants in advance and/or you may add participants during a conference. This is called to Add Another Call.

Observe that Add Another Call is an optional feature, which your system may, or may not, be equipped with.

Systems without this option will have no Add Another Call icon in the menus.

Note! In this video system all communication is IP based. To include 3G cellular phones and/or ISDN connections, access to additional functionality and hardware is required.

Consult your administrator or your TANDBERG representative for details.

Tip! MultiSite is an optional feature of this system.

The MultiSite feature is, however, available as retro-fit to your system.

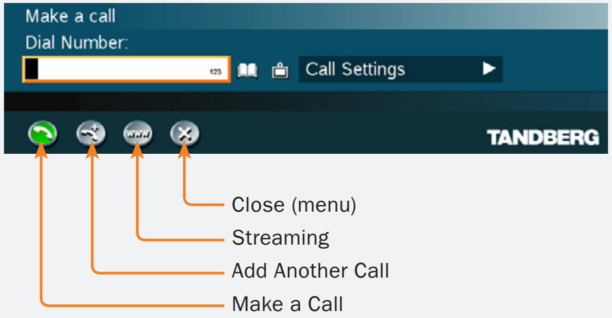
Consult your administrator or your TANDBERG representative for details.

Adding Calls

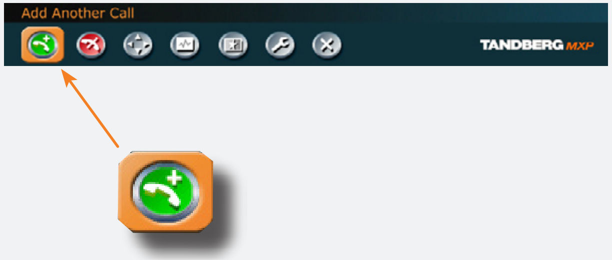
1. Select Make a Call from the menu, and dial a number manually or use the Phone Book to select a conference participant. More on this can be found on the preceding pages.

   As an alternative you may select a predefined MultiSite Phone Book entry – see New MultiSite Contact in this section of the User Guide for details.

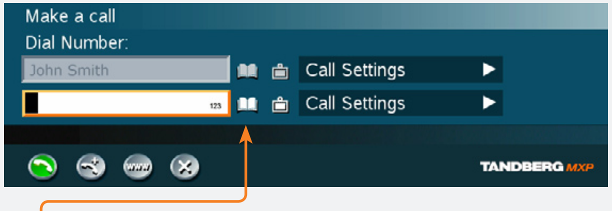
   Press OK on the remote control.



2. To add another participant to the conference, start by selecting the Add Another Call icon and press OK. The menu will now look like this:



3. Enter the number manually or use the Phone Book to select the additional participant. Press OK to call that party.



Select this icon and click OK to open the Phone Book.

4. Repeat until all participants have been called and successfully connected. A maximum of 4 video calls and 3 telephone calls can be connected simultaneously.

Tip! You may use the Add Another Call icon to specify everyone to be called before you actually call them.

Altering the Call Settings

About Call Settings

The Call Settings specifies the quality of the call. Each call will be set up with the default call settings if the settings are not altered.

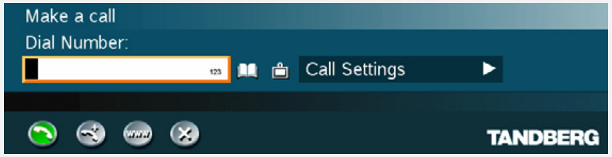
In this case the field is labeled Default Call Settings. If the settings for some reason are altered for the current participant in the current call, the name of the field will be changed to reflect this.

Usually there will be no need for you to alter the settings.

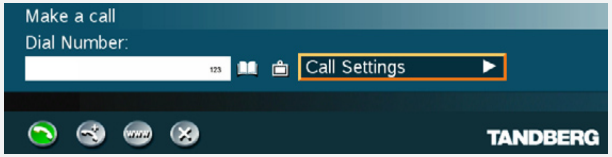
The Default Call Settings are defined in Call Quality > Default Call Settings of the Control Panel.

To Alter the Call Settings

1. Select Make a Call from the menu.

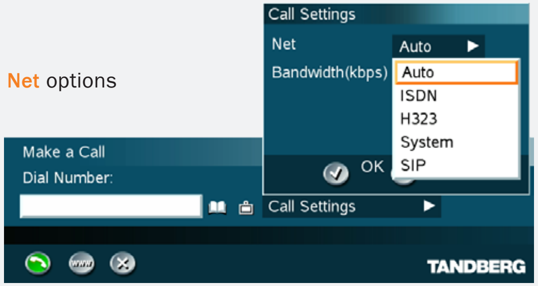


2. Navigate to Default Call Settings and click OK.



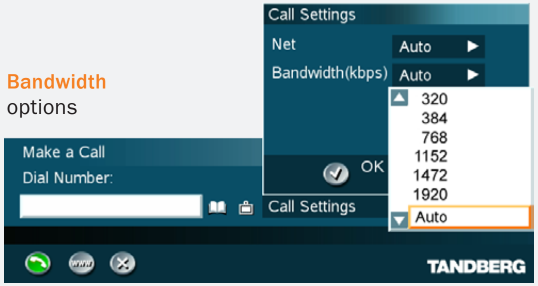
3. Set the Call Settings as required.

Net options



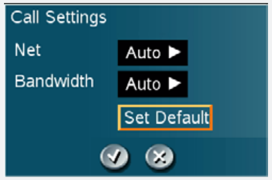
Moving up and down in the submenus.

Bandwidth options



4. If you want the new settings to be used as the new Default Call Settings, select Set Default and press OK.

These settings will now be the default settings for all future manually dialled calls.



Otherwise, just navigate directly to the OK icon and press OK on the remote control.

About Streaming

Streaming lets you broadcast your meeting to participants on the web. The web participants can view the meeting, listen to the meeting, see snapshots, but not participate themselves. Snapshots of current stream (if MultiSite), selfview, far end and Dual Video Streams are accessible via http.

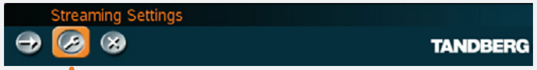
Tip! The streaming source setting is not available when streaming only is supported outside a call.

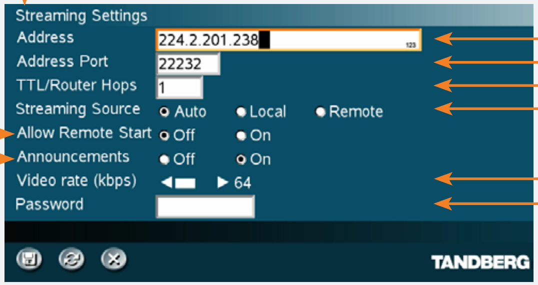
To View the Streaming

1. After streaming is started, an easy way to view the streamed audio/video on your PC, is to start your Web browser and enter the IP-address of the streaming system.

2. After the Web page of the system is shown, click on Streaming. Alternatively, enter http://<codec/ip-address>/showstream.ssi

Streaming Settings





Address

Address is defined as the IP-address of a streaming client, streaming server or a multicast address. Giving an address in the range 224.0.0.1–239.255.255.255 will broadcast the stream to any host that has joined the specified multicast group. Specifying normal broadcast address 255.255.255.255 will broadcast to any members on the LAN.

Address Port

If several codec's are streaming to the same IP-address, different ports have to be used in order for the client to know which stream to receive. If the first codec streams on port 2240 and the second codec on port 2250, the client has to specify which port to listen to. Video is transmitted on the specified port; audio is transmitted on the port number 4 greater than the specified video port, in this case 2244 and 2254.

TTL/Router Hops

This is used for streaming data to limit how many routers the data should pass before it is rejected. If TTL is set to 2, data will not traverse more than 2 router hops.

Streaming Source

Auto: Enables streaming of both local and far end video. Selection of which site to be streamed is done using voice switching (the site that speaks is streamed).

Local: Only the local video will be streamed.

Remote: Only the far end video will be streamed.

Local and far end audio is always streamed.

Allow Remote Start

On: Streaming can be started from external user interfaces like the Web-browser or Telnet session.

Off: Streaming can only be started from the Video Conferencing System User Interface using the remote control, or by using the Data port. This will prevent activation of streaming using Web browser or Telnet sessions. See also Password.

Announcements

On: The codec will send announcement packets to the network that it is streaming. This enables a streaming client (e.g. a PC) to connect to the codec's streaming session. Used by Cisco IP/TV.

Off: No announcement packets will be transmitted.

Password

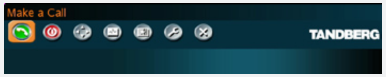
Set password so that only participants entering correct password will be able to view the streaming session. Entering a password will prevent unauthorized people from accessing the streaming session.

Video Rate

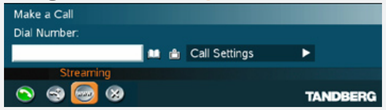
Defines the Video streaming rate from the system. Range is 16–320 kbps. In addition, audio (G.711) streaming rate is 64 kbps, providing a maximum streaming rate of 384 kbps.

Utilizing Streaming

1. Select Make a Call and click OK.



2. Navigate to Streaming and click OK.



3. Press Start Streaming from the menu line. An indicator appears on-screen when streaming is activated.

4. Press Stop Streaming to end streaming. Streaming will also end when you disconnect the call.

Answering an Incoming Call

About Incoming Calls and Privacy

You may want to set up your system so that the microphone is switched off whenever you receive an incoming call.

By pressing the **Microphone Off** key you will prevent callers from hearing you without your control (press again to activate).

To combine convenience and privacy, your system may be set up to automatically accept an incoming call, but with the microphone switched off. In this case you must switch the microphone back on manually yourself (just press the **Microphone Off** key to reactivate a disabled microphone).

You may also have your system set up so that you always must answer all incoming calls manually.

These settings are parts of the Settings (in Control Panel) available. Your adminstrator, may or may not, have password protection activated to prevent unauthorized alterations of these and other settings. If in doubt, consult your adminstrator.

Note! A message will be sent to the far end whenever you have disabled your microphone and/or your camera.

Tip! An alternative to the above could be the use of the **Do Not Disturb** feature (far right).

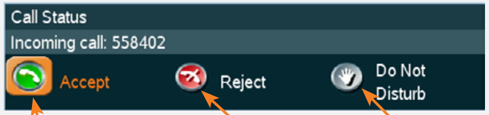
Want to Change the Video Alert Audio Signal?

You are not stuck with the audio signal alerting you that an incoming call is on its way. This may be changed, see Audio Settings in the Control Panel section. Note that these settings may be password protected by your adminstrator.

Tip! Whenever you receive an incoming call from someone listed in your Phone Book, the caller's identity will be shown on the screen, just like in a cellular phone. For more on the Phone Book, see Phone Book Features.

Tip! Whenever **Do Not Disturb** is activated, the far end will be informed that the called is busy.

Incoming Calls will Produce the Below Menu



Activate *Do Not Disturb*

Reject the incoming call

Accept the incoming call

This will not apply if **Do Not Disturb** has been activated, nor will it apply if **Autoanswer** has been set to **On** or **On + Mic Off**

To Accept an Incoming Call

- Press the **OK** button on the remote control.
- Press the the green **Call** button on the remote control.

OK button
End Call button
Call button

To Reject an Incoming Call

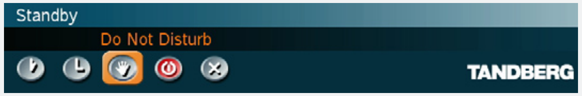
- Select the **Reject** icon and press the **OK** button on the remote control.
- Press the **End Call** button on the remote control.

Using Do Not Disturb

There is a **Do Not Disturb** function available on your system. When set to **on**, all incoming calls are blocked from your system.

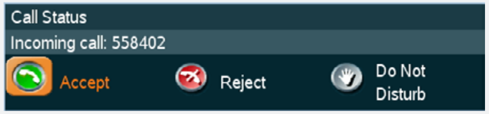
Use the feature as follows:

1. Outside a call, press the red **Call Reject** key ( ). Navigate to the **Do Not Disturb** icon:



Press **OK** to activate the feature. The screen will now turn black, and the following text will appear:

Note! Assume **Do Not Disturb** has not been activated. Choosing **Do Not Disturb** (selecting the icon and then pressing **OK**) when receiving an incoming call will then do two things: It rejects the incoming call (in the same way as choosing **Reject**), and sets the **Do Not Disturb** functionality to **ON**.



Ending an Ongoing Call

Ending a Point-to-Point Call

1 Use either of the below methods:

- Press the End Call button ( ) on the remote control.
- Press the OK/Menu button on the remote control to display the menu.

2 This will produce the End Call dialogue box:

3 Use either of the below methods:

- Press the End Call button ( ) on the remote control again.
- Press the OK/Menu button to confirm that the call is to be ended.

Tip! Switching off the monitor(s), using the power button on the monitor, will not end a call. Some systems even come with monitors that cannot be switched off!

Ending a MultiSite Call

1 Use either of the below methods:

- Press the End Call button ( ) on the remote control.
- Press the OK/Menu button on the remote control to display the menu.

2 This will produce the End Call dialogue box:

3 Use either of the below methods:

- Press the End Call button ( ) on the remote control again.
- Press the OK/Menu button to confirm that the call is to be ended.

Tip! Ending a MultiSite call can only be done by the host. The other parties can disconnect themselves from the conference at any time, but they have no influence on the rest of the conference.

Tip! To end one or a few of the calls in a MultiSite Meeting navigate to the name of the call to be terminated and terminate the call as if it were a point-to-point call.

Basic Phone Book Features

Accessing the Phone Book

To access the Phone Book, press the Phone Book button ( ) on the remote control or select the Phone Book icon in the Call menu.

Accessing the alphanumeric characters

Toggle between ABC and abc mode by pressing the # key. To switch to 123 mode, press the # key for one second (and again for one second to return to alphanumeric mode).

TIP! We strongly recommend that you copy contacts often used to My Contacts. Note, however, that the local copy will not be updated if the Global Contacts are updated from the management system.

Tip! The contents of your Phone Book can be arranged in a tree structure with several subfolders. Use the Up one Level icon ( ) in the Task Column to navigate back up in the tree structure.

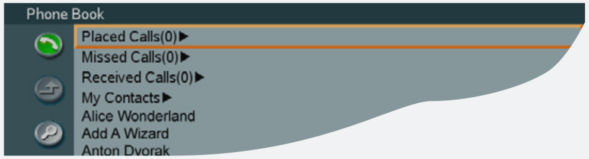
The Call Log – Placed, Missed & Received Calls

The Call Log – listing

- Placed Calls
- Missed Calls
- Received Calls

is essentially a set of lists of your system's call history. The lists contain the most recent numbers placed, missed, and received, limited to a maximum of 30 numbers for each list. The numbers remain in these lists until the system is restarted or the list is deleted manually.

Missed Calls lists all calls that were not received – either because you declined the call or just because you were not there when the call attempt took place.



Navigate in the menu in the usual manner:

- Use Vertical Arrow keys to move up and down in the menu.
- Press OK or use the Right Arrow key to expand items with an arrow appended.

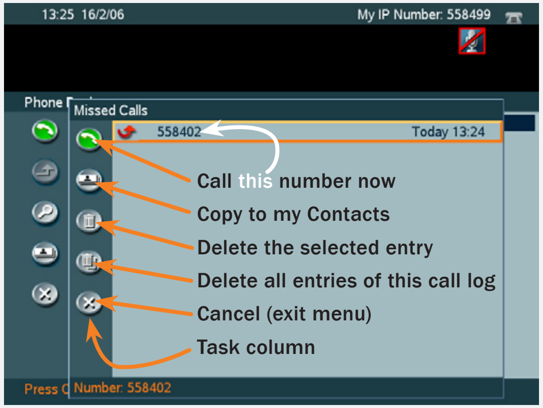
Call Log Options

Let us consider an expanded log of *Missed Calls* as an example. The *Placed Calls* log and the *Received Calls* log are exactly similar – with identical features.

Expand Missed Calls as explained in the *Call Log* frame to the left.

Navigate in the menu in the usual manner:

- Use the Left Arrow key to move from the *Missed Calls*



  column to the *Task* column.
- Use Vertical Arrow keys to move up and down in the menu.
- When you have located the icon representing what you want to do, press OK .

Tip! Any member of these lists already listed in your Phone Book will appear with the name you have assigned to them and not just with the number.

Searching in the Phone Book

About Searching in the Phone Book

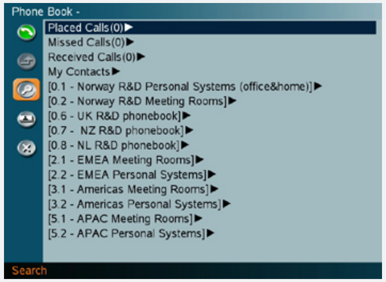
The *My Contacts* may contain up to 200 entries and the entire Phone Book (which may include server based *Global Directories)* can be virtually unlimited in size. Hence, using the **Arrow** keys as the only navigation device can easily be a cumbersome experience. What to do?

Enter *Quick Search by Letters*. Whenever you are inside the Phone Book navigating in the list of entries, the numerical keypad automatically switches from **123** mode to **ABC** mode. To locate a specific entry, just type in the first letter as with a cellular phone – see the previous page for the keyboard layout.

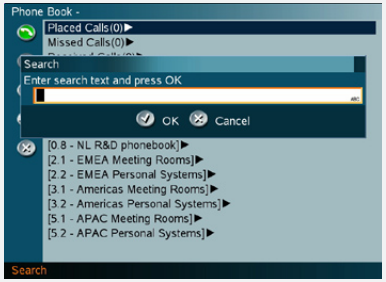
The procedure outlined here is to be used whenever you need to refine your search.

Searching in the Phone Book

1. In the Phone Book use the **Cursor** keys to move to the Task column and then down to the **Search** icon.



2. Press **OK** to open the **Search** dialogue box:



3. Enter the search string (the name) and press the **OK** key or move down to the **OK** icon and press the **OK** key. (To leave the menu cancelling your search, press **Cancel** or move down to the **Cancel** icon and press **OK**).

4. Use the **Arrow** keys to move to the requested entry, if needed.

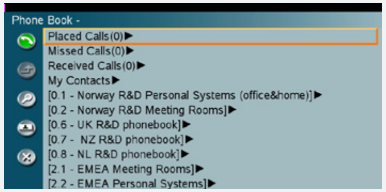
5. To dial the selected entry, move the cursor to the green **Call Now** icon and press **OK**.

Tip! When a search in the Phone Book is made by means of the *Search* function, contacts matching the search text are displayed only. Navigate to, and click on, the **Up one Level** icon ( ) to return to the alphabetical list.

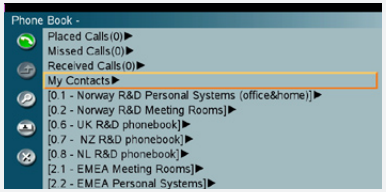
Adding New Contacts to the Phone Book

Adding a New Contact Manually

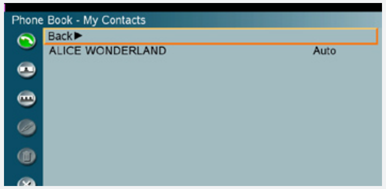
1. Press the **Phone Book** icon to enter the Phone Book.



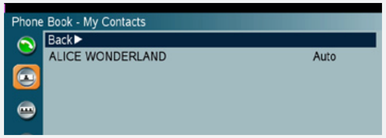
2. Use the **Arrow** keys to navigate down to **My Contacts**



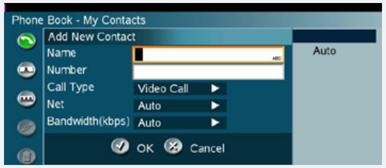
3. Press **OK** to produce the contents of **My Contacts**.



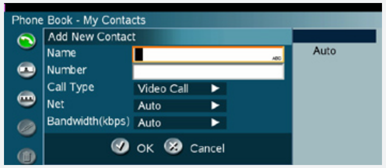
4. Use the **Arrow** keys to navigate to the **Add New Contact** icon.



5. Press **OK** and enter the name of the new contact.



6. Navigate one line down and enter the number of the new contact.



7. Navigate further down to alter the default settings of **Call Type**, **Net Type** and **Bandwidth**, if needed

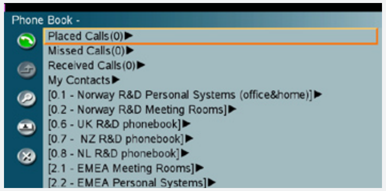
   If in doubt, consult your system administrator.

8. Navigate down to the bottom of the menu and click **Ok** to leave menu putting changes into effect.

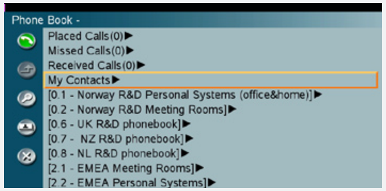
   Or, click on **Cancel** to leave menu undoing any changes.

Adding a New Contact Directly from the Call Log

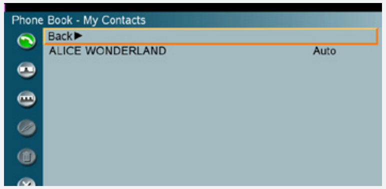
1. In the **Phone Book** move down to **Placed Calls**, **Missed Calls**, or **Received Calls** and press **OK** to produce the contents of the selected item.



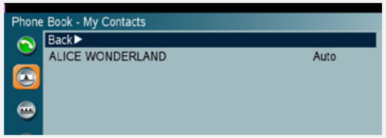
2. Use the **Arrow** keys to navigate down to **My Contacts**.



3. Press **OK** to produce the contents of **My Contacts**.



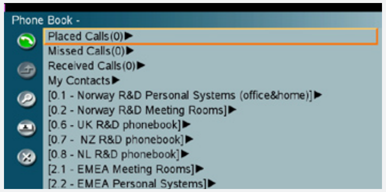
4. Use the **Arrow** keys to move to the **Add New Contact** icon and click **OK**. The new contact is now stored in **My Contacts**.



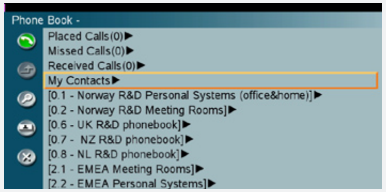
Editing Entries in the Phone Book

Editing a Contact in My Contacts

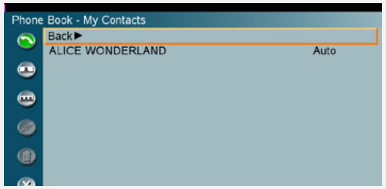
1. Press the **Phone Book** icon to enter the Phone Book.



2. Use the **Arrow** keys to navigate down to **My Contacts**



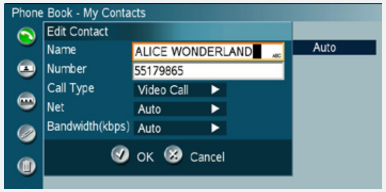
3. Press **OK** to produce the contents of **My Contacts**.



4. Use the **Arrow** keys to navigate down to the entry to be edited.

5. Use the **Arrow** keys to navigate to the Task Column and then down to the **Edit Entry** icon.

6. Press **OK** to produce the **Edit Contact** dialogue box.



7. If needed, edit the name of the contact, using the numerical keypad (which automatically enters **ABC** mode). The maximum name length is 30 characters.

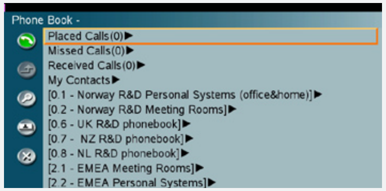
   If needed, edit the number of your new contact by means of the number keys on the keypad (which now enters **123** mode) The maximum number length is 60 digits. Use * as separator in IP addresses. To switch to **ABC** mode, press **#** for one second.

8. Alter the default setting of **Call Type**, **Network**, and the default setting of **Bandwidth**, if needed.

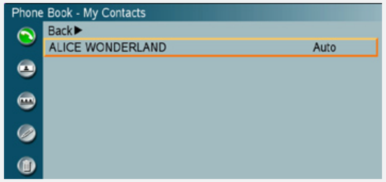
   Navigate to the **OK** icon and press **OK** to save putting changes into effect or navigate to the **Cancel** icon to leave menu undoing any changes.

Deleting a Contact in My Contacts

1. Enter the Phone Book and navigate to **My Contacts** as explained above.

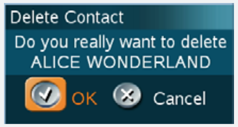


2. Press **OK**. Use the **Arrow** keys to navigate down to the entry to be deleted.



3. Navigate to the **Task Column** and select the **Delete** icon.

4. Press **OK**. You will now be prompted to confirm your selections. Press **OK** to delete or **Cancel** to undo.



Creating Multisite Contacts in the Phone Book

About Multisite Contacts*

Assume that you frequently use your video system to set up MultiSite video meetings involving the same persons every time.

Wouldn't it be nice to be able to set up the video meeting with just a few clicks?

Enter MultiSite Contacts. You may assign contacts already in your Phone Book to a MultiSite group. This group will in turn form a MultiSite Contact. When setting up a video conference, all members of a particular MultiSite Contact will then be connected automatically, so you won't have to call them one by one!

My Contacts can hold up to 50 MultiSites Contacts. The TANDBERG 1700 *MXP* supports up to a total of 4 video participants and 3 telephone participants per meeting.

* MultiSite Contacts is an optional feature. Contact your system administrator or your TANDBERG representative for details.

Bandwidth for a MultiSite Contact Call

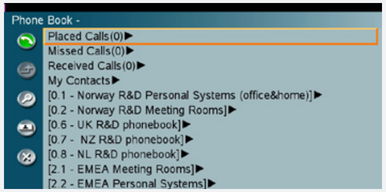
When calling a MultiSite Contact, the system will try to call the participants with their specified bandwidths. If the total bandwidth exceeds the system's maximum bandwidth, the system will downspeed and distribute the available bandwidth equally among all the participants.

Example: Assume that in a MultiSite Contact there is one participant with bandwidth 256 kbps and one participant with bandwidth 384 kbps. Furthermore assume that 512 kbps is the maximum bandwidth of the system.

The sum of the two participants' bandwidth clearly exceeds the maximum bandwidth available. The system will then downspeed so that each participant connects with equal bandwidth, i.e. 512kbps/2 = 256 kbps.

Defining a New MultiSite Contact

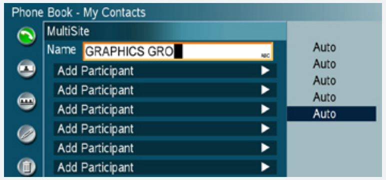
1. Press the **Phone Book** icon to enter the Phone Book.



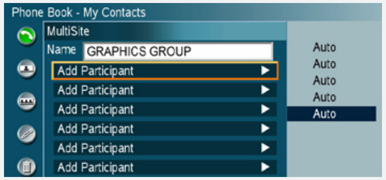
2. Use the **Arrow** keys to navigate to the **My Contacts** and press **OK**.

3. Use the **Arrow** keys to navigate to the **Task Column** and select the **MultiSite** icon.

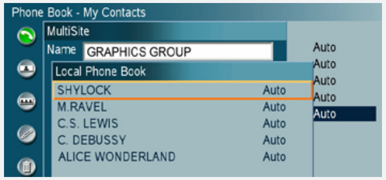
4. Press **OK** to produce the submenu. The cursor will now be positioned at the name field allowing you to enter a name for the group.



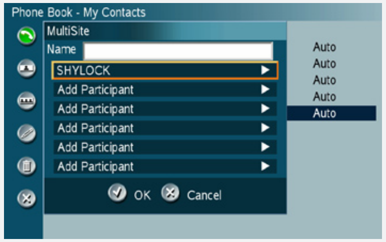
5. Use the **Arrow** keys to navigate one line down to add a participant. Any participants to be added must be in the **Local Phone Book** already.



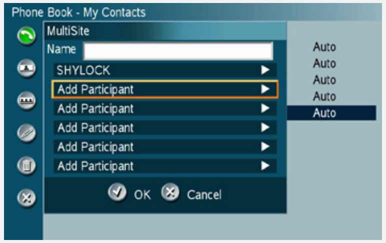
6. Press **OK** to produce the **Add Participant** dialogue box.



7. Navigate to a participant to be included in the MultiSite Contact. Press **OK** to include.



8. Move one line down and repeat the procedure.

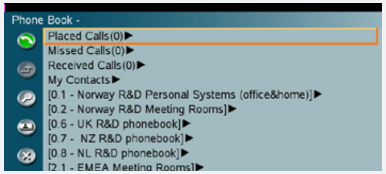


9. Continue until all participants have been added. Exit by **OK** or **Cancel** as usual. You may include up to 4 video participants and 3 telephone particpants.

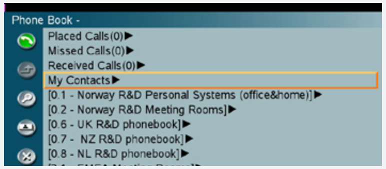
Editing Multisite Contacts in the Phone Book

Viewing the Participants in a MultiSite Contact

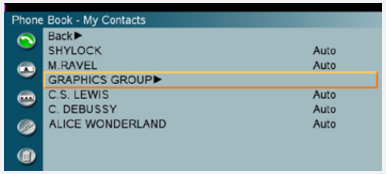
1. Press the **Phone Book** key to enter the Phone Book.



2. Use the **Arrow** keys to navigate down to **My Contacts**



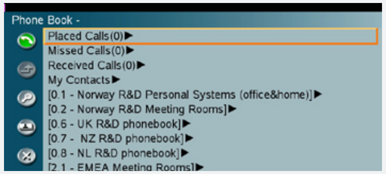
3. Press **OK** to produce the contents of **My Contacts**.



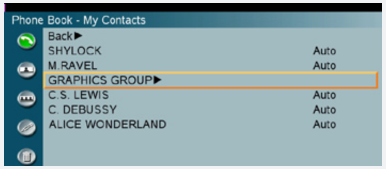
4. Use the horizontal **Arrow** key to expand the entry revealing the members.

Editing the Participants in a MultiSite Contact

1. Enter the Phone Book and navigate to **My Contacts** as explained above.



2. Press **OK** and navigate to the **MultiSite Contact** to be edited.

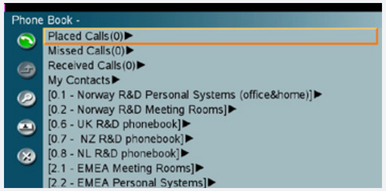


3. Navigate to the **Task Column** and then down the **Edit** icon.

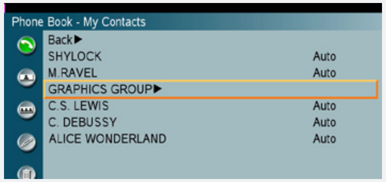
4. Press **OK** and edit the in the same way as when creating a new one (previous page).

Deleting a MultiSite Contact in My Contacts

1. Enter the Phone Book and navigate to **My Contacts** as explained above.

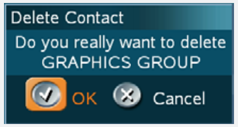


2. Press **OK** and navigate to the **MultiSite Contact** to be deleted.



3. Navigate to the **Task Column** and select the **Delete** icon.

4. Press **OK**. You will now be prompted to confirm your selections. Press **OK** to delete or **Cancel** to undo.



Video Meeting Features

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:

http://www.tandberg.net/support/documentation.php

Your TANDBERG 1700 *MXP* can do point-to-point video and telephone calls as well as video conferences with up to 4 video calls and 3 telephone calls (the latter is called MultiSite).

Some system features apply to point-to-point calls only, others apply to video conferences only, while a couple of features apply to both situations.

This part of the User Guide outlines features applicable to point-to-point calls only, but also features shared by point-to-point and conferences.

Features specific to video conferences are treated separately in the section MultiSite Features.

Features Overview

This section of the User Guide outlines features available during a video call. Main emphasis has been put on features available in point-to-point calls only (as opposed to video conference calls – also called MultiSite calls). However, features available for both point-to-point and MultiSite are also covered.

Observe that although Screen Layout features and Streaming indeed apply during video calls, they are not described in this section, but in Getting Acqainted with the System and Call Handling, respectively.

Screen Layout

You may set the system to show yourself (selfview), the other party, or a presentation.

The TANDBERG 1700 *MXP* can also be used as a local PC display, without letting the other party see what's on your PC screen.

Finally, you may also set up the system to display more than one image on the screen (Picture In Picture – PIP or Picture Outside Picture – POP).

For more on this, see Selfview, Local PC Display and Screen Layout.

Presentations

The Presentation Functionality in the system enables you to show other available video sources in addition to your Main Camera. This is perfect for meetings where you would like to show a PowerPoint presentation, for example.

Use Presentation outside a call to make a local presentation for the people in your own meeting room. Use Presentation when you are in a call to make a presentation for the far end as well.

For more on this, see Presentation.

Dual Video Stream

With Dual Stream (optional feature) you have the opportunity to show two different live video streams simultaneously, main video and one additional source. This is handy when showing a presentation. You see the live presentation and the live video of the presenter simultaneously. Both parties must support Dual Video Stream to make this work. If not, the presentation will be sent as the main video stream instead.

For more on this, see Dual Video Stream.

Far End Camera Control

This is a feature that lets you pan, tilt, and zoom the far end camera. If far end presets are available you may access these as well, and you may also make use of any video sources that the far end may have at its disposal.

This feature requires a movable camera in the far end – i.e. communication between two 1700 *MXP* units will not provide far end camera control.

For more on this, see Far End Camera Control.

Presets

The far end may use camera presets to easily vary between predefined camera angles in their own end. Thus they eliminate the need to move their camera about in a manual way.

Your 1700 *MXP* may get access to these settings. If no presets have been stored and you try to access far end presets nothing will happen.

For more on this, see Far End Camera Control – Using Far End Presets.

Accessing Far End Video Sources

In point-to-point video meetings your system may be connected to a system with several inputs for various video sources. You may get access to these by means of the Far End Video controls.

Observe that your system can access the inputs only. The far end may have connected other sources to the inputs than the input names normally should suggest.

For more on this, see Accessing Far End Video Sources.

Snapshots

The system can take a snapshot of your live video. Snapshot is handy when you are in a call with a system that does not support Dual Video Stream. Use Snapshot to show a snapshot of your presentation and continue the meeting with main camera.

For more on this, see Snapshots.

Text Chat

You may use your 1700 *MXP* to send and receive text messages using the chatting function available.

All you need is to select the Text Chat function and use the keypad as you would when sending text messages (SMS) using your cellular phone.

For more on this, see Text Chat.

Streaming

Streaming lets you broadcast your meeting to participants on the web. The web participants can view the meeting, listen to the meeting, see snapshots, but not participate themselves. Snapshots of current stream (if MultiSite), selfview, far end and Dual Video Streams are accessible via http.

For more on this, see Streaming.

Far End Camera Control – Pan, Tilt and Zoom

About Far End Camera Control

This is a feature that lets you pan, tilt, and zoom the far end camera. If far end presets* are available you may access these as well, and you may also make use of any video sources that the far end may have at its disposal.

This feature requires a movable camera in the far end – i.e. communication between two 1700 *MXP* units will not provide far end camera control.

This feature is not accessible in MultiSite video meetings.

* Far End Presets are described on the following page.

Panning, Tilting, and Zooming the Far End Camera

1. During a video meeting, press **OK** to produce the menu and navigate to the **Camera Control** icon.

2. Press **OK** to display the menu and navigate to the **Far End** tab.

3. Navigate to the **Camera Control** icon.

4. Press **OK** to enable **Far End Camera Control**. Observe the four triangles indicating your control options.

5. Use the **Arrow** keys to pan and tilt the far end camera and **Zoom +** and **Zoom –** to zoom in and out.
Press **OK** to exit this mode and navigate to the **Back** icon and click **OK** to exit the **Camera Control** mode as such.

Far End Camera Control – Using Far End Camera Presets

About Camera Presets

The far end may use camera presets to easily vary between predefined camera angles in their own end. Thus they eliminate the need to move their camera about in a manual way.

Your 1700 *MXP* may get access to these settings. If no presets have been stored and you try to access far end presets nothing will happen.

Using the Far End Preset

1. During a video meeting, press **OK** to produce the menu and navigate to the **Camera Control** icon.

2. Press **OK** to display the menu and navigate to the **Far End** tab.

3. Navigate to the **Display Presets** icon.

4. Press **OK** to enter the **Presets** menu. Navigate to the preset required and press **OK** again to utilize.

5. A total of 15 (numbered 0–14) Far End Presets are available. To access **Presets 7–14** navigate to **More Camera Presets** and click **OK**. To exit this mode select **Back** and click **OK** in the usual manner.

About Presentation

The Presentation Functionality in the system enables you to show other available video sources in addition to your Main Camera. This is perfect for meetings where you would like to show a PowerPoint presentation, for example. You can even use Arrow keys up and down on the remote control to activate Page Up/Down on the PC (this applies when using VNC only).

Use Presentation outside a call to make a local presentation for the people in your own meeting room. Use Presentation when you are in a call to make a presentation for the far end as well.

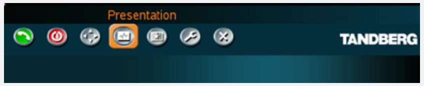
The quickest way to show a presentation is to use the Presentation key on the remote control. The Presentation key shows a predefined video source, PC is the default. It is possible to change the presentation source in the Presentation menu. Choose Presentation from the main menu if you want to select a video source manually. The Presentation menu offers you all the available video sources supported by your system.

Tip! The default presentation source can be permanently changed in Presentation Settings.

Tip! In a call, dual video stream is needed to see the participants and the presentation simultaneously – see the next page for details.

Running a Presentation

1. Connect the device to act as a source for the presentation (PC, DVD, VCR) to the system and select Presentation from the menu, followed by OK.



Alternatively, press the Presentation key on the remote control for one second.

2. Make your source selection, press OK and start your presentation.

The green circle indicates the default setting.

3. Press the Presentation key again to end the presentation and go back to main camera.

Dual Video Stream

About Dual Video Stream

With Dual Stream (optional) you have the opportunity to show two different live video streams simultaneously, main video and one additional source. This is handy when showing a presentation. You see the live presentation and the live video of the presenter simultaneously. When you start a presentation, Dual Stream starts automatically if both local and remote system supports Dual Stream. If one of the systems does not support Dual Stream, no second video stream will be established and your presentation will be shown as your main video instead. However, in a MultiSite meeting dual stream will be established if at least two systems support it. Those not supporting it will get no second stream!

Dual Stream and Bandwidth

Using Dual Stream, the quality automatically downspeeds to the optimal bandwidth. This means that you need higher quality to allocate enough bandwidth for the two video streams. Dual Stream borrows bandwidth from main video stream. When Dual Stream is closed, the bandwidth is returned to the main video.

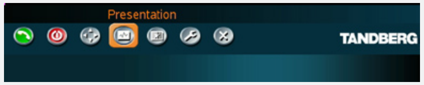
Note that when selecting the Document Camera or PC, the system will automatically request floor when connected to a MCU conference as MultiSite host or connected to an external MCU.

No Dual Video Stream?

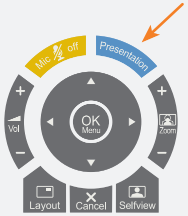
The Dual Video Stream ability is an optional feature, but available as retrofit. Contact your system adminstrator or your TANDBERG representative for details.

Running a Presentation Using Dual Video Stream

1. Connect the device to act as a source for the presentation (PC, DVD, VCR) to the system, and select **Presentation** from the menu, followed by **OK**.

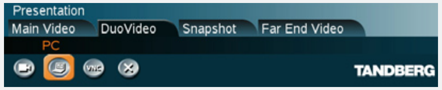


Alternatively, press the **Presentation** key on the remote control for one second.



2. The **Presentation** menu will now be displayed.

Make sure the **DuoVideo** tab is selected (as shown here) and navigate to the source whose contents is to be sent as dual stream.

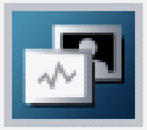


You are free to choose whether the dual stream (the other stream) shall be your camera or your presentation – see the previous page for more on this.

Example of dual stream in a MultiSite meeting with three participants and a presentation

3. End the Dual Stream presentation by pressing **Presentation** key again.

Dual video stream activated is indicated by this icon:



Snapshots

About Snapshots

The system can take a snapshot of your live video. Snapshot is handy when you are in a call with a system that does not support Dual Video Stream. Use Snapshot to show a snapshot of your presentation and continue the meeting with main camera.

The following should be observed:

- This system can send snapshots in a point-to-point video meeting only, sending snapshots in MultiSite meetings is not supported.
- When displaying a snapshot, it will always be the latest snapshot taken that is displayed, regardless of which end (near or far) it was that took it.
- Any snapshot taken is deleted once the call is terminated.
- The Snapshot feature uses H.261 Annex D. Consequently it will fail to work when using H.264 video compression.

Taking a Snapshot Using the Menu

1. In a call click **OK** to produce the menu line, if needed, and navigate to the **Presentation** icon.

2. Click **OK** to display the **Presentation** menu. Navigate to **Snapshot** tab and then down to the **Take New Snapshot** icon. Click **OK** to take a snapshot and send it to the far end.

Taking a Snapshot Using the Remote Control

- In a point-to-point call press the **Snapshot** key on the Remote Control.

Note! If the Number Key Settings menu has been set to **Touch Tones**, pressing the **Snapshot** key will not be interpreted as snapshot, but as a touch tone.

The **Number Key Settings** must be set to something else to make the **Snapshot** key work. This is done in the Control Panel of your system. Your system adminstrator may have password protected this area.

Note! Likewise, this will not work when you are in an input field requiring numerical or alphanumerical entries. The * will then be interpreted as *.

Displaying a Snapshot

1. In a call click **OK** to produce the menu line, if needed, and navigate to the **Presentation** icon.

2. Do as above, but select **Display Snapshot** instead. Click **OK** to display the snapshot.

Gaining Access to the Far End Video Sources

About Far End Video Sources

In point-to-point video meetings your system may be connected to a system with several inputs for various video sources. You may get access to these by means of the Far End Video controls.

Observe that your system can access the inputs only. The far end may have connected other sources to the inputs than the input names normally should suggest.

When the far end system is a TANDBERG system both parties will be notified when one party tries to access one of the video sources of the other party. This may or may not take place with systems from other vendors also.

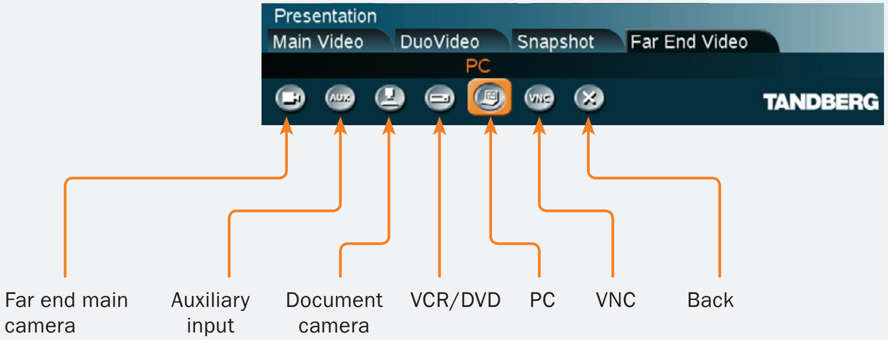
A text will be displayed for some seconds at the top of both parties' screen indicating the input source accessed. Example: **PC**.

If you display the other party in full screen this will be the only indication you get when the other party is accessing one of your video sources.

If you set the screen to display both parties you will see what the other party sees, since both incoming and outgoing video are displayed on your screen.

Far End Video Options

As an example let us assume that your system is connected in a point-to-point video call to a large TANDBERG video system with many inputs. You may then have several options:



Accessing the Far End Video Sources

1. In a call click **OK** to produce the menu line, if needed, and navigate to the **Presentation** icon.

2. Click **OK** to display the **Presentation** menu and navigate to the **Far End Video** tab.

3. Make your input selection and press **OK** to have the selected input shown on your screen.

Text Chat

About Text Chatting

You may use your 1700*MXP* to send and receive text messages using the chatting function available.

All you need is to select the Text Chat function and use the keypad as you would when sending text messages (SMS) using your cellular phone.

NOTE! This will not work unless the far side a) supports text chat and b) has activated that feature.

Text chatting applies to point-to-point video meetings only.

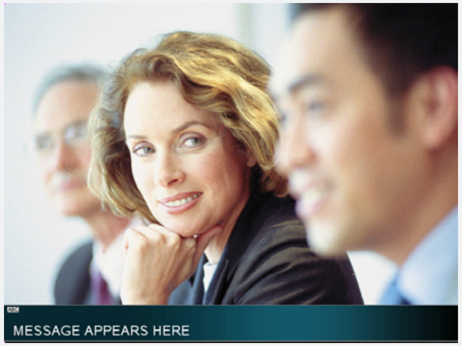
Tip! Once you enter **Text Chat** mode, the dialogue box expects alphanumerical entries via the remote control. For more on this matter, see Numerical keypad features.

Chatting with the Other Party

1. In a call click **OK** to display the menu and navigate to **Services**.

2. Click **OK** and navigate to **Text Chat**.

3. Press **OK** and start your text chatting by pressing the keys on the remote control.



4. Press **OK** to end the chat and return to the **Services** menu.

MultiSite Features

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:

http://www.tandberg.net/support/documentation.php

The TANDBERG 1700 *MXP* can handle up to 4 IP video calls and 3 IP telephone calls simultaneously. To be able to do this, the 1700 MXP has a built-in MCU (Multipoint Control Unit) called MultiSite. This feature turns your TANDBERG 1700 *MXP* into a true video conferencing system. This part of the User Guide outlines features specific to video conferencing.

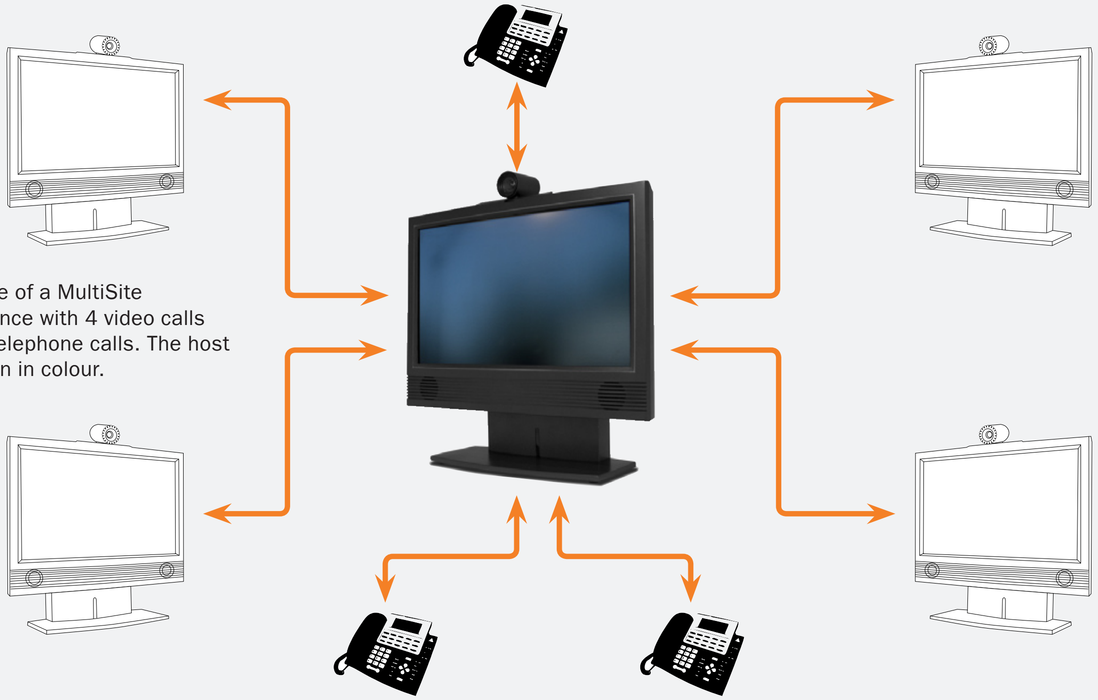
Video Meetings with Several Participants – an Overview

About MCU and MultiSite

The TANDBERG 1700 *MXP* can handle up to 4 IP video calls and 3 IP telephone calls simultaneously. To be able to do this, the 1700 *MXP* has a built-in MCU (Multipoint Control Unit) called MultiSite. The MultiSite supports both Split Screen and Voice Switched mode – see below.

You may set up a video meeting with the participants in advance and/or you may add participants during a conference. More about this can be found in MultiSite Conferences – Adding Calls.

You may also have your system connected to an external MCU to participate in video meetings with a multitude of participants. Contact your system administrator or your TANDBERG representative for details.



Example of a MultiSite conference with 4 video calls and 3 telephone calls. The host is shown in colour.

Who Becomes the Host?

The host of a MultiSite video meeting is the endpoint to which all the others are connected.

If two systems both supporting MultiSite both have established a MultiSite call and one of these call the other, cascading will take place. This means that you may have more participants in total than a single system supports. In this case, the host will be the one calling the other.

Request, Release, and Assign Floor

When requesting floor, your video will be broadcasted in full screen to all other participants in the conference. Request Floor is useful when you want to speak or display something in front of all participants.

Release Floor when you are done and make the floor available for other participants in the conference. An indicator appears when you have floor and disappears when you release floor.

If your system is the one connected to all the other systems, you will be the host of the meeting and you will also be able to assign the floor to others.

Terminal Names

You may want to see a list of all the participants in a MultiSite video meeting. For this purpose there is a list of the terminal names available.

Split Screen and Voice Switching

In order to be able to see all the particiapnts all the time, the screen may be set in Split Screen mode, dividing the screen into several images. Voice switching will give priority to the participant speaking loudest.

Layout

When you are the host of a MultiSite video meeting, you have control of the main conference image layout. The layout chosen by you is transmitted to the other participants as a single image and its layout cannot be changed by them. However, they may configure their own screen using the **Layout** button on the Remote Control. Their choices are the image you send out in full screen, or as side-by-side – your image and their self view.

Tip! Presentation and Dual Video Stream are not constrained to point-to-point calls, so they work even here. See Presentation and Dual Video Stream for details.

Request and Release Floor

About Requesting and Releasing Floor

When requesting floor, your video will be broadcasted as the large picture to all other parties in the conference. Request Floor is useful when you want to speak or display something in front of all participants.

Click Release Floor when you are done and make the floor available for other parties in the conference. An indicator appears in the upper right corner when you have floor and disappears when you release floor, see the far right screenshot below.

Automatic Full Screen When Requesting Floor

You may set up the system to switch to full screen each time someone requests the floor. This is done in the Control Panel – see Floor to Full Screen in Settings > Video.

Note that the settings may be password protected by your system administrator.

Requesting and Releasing Floor

1. In a MultiSite call (a video meeting) click OK to display the menu and navigate to Services.

2. Click OK to enter the submenu and navigate to Request Floor.

3. Click OK to have your video broadcasted as the large picture. Observe that the icon changes name to Release Floor. Click on the Release Floor icon when you are done.

You have the Floor.

Assign Floor

About Assigning Floor

If your system is the one connected to all the other systems, you will be the host of the meeting and you will be able to assign the floor to others.

If two systems both supporting MultiSite both have established a MultiSite call and one of these call the other, cascading will take place. This means that you may have more participants in total than a single system supports. In this case, the host will be the one calling the other.

Automatic Full Screen When Requesting Floor

You may set up the system to switch to full screen each time someone requests the floor. This is done in the Control Panel – see Floor to Full Screen in **Settings** > **Video**.

Note that the settings may be password protected by your system administrator.

Assigning Floor

1. In a MultiSite call (a video meeting) click **OK** to display the menu and navigate to **Services**.

2. Click **OK** to enter the submenu and navigate to **Assign Floor**.

3. Click **OK** to display a list of the meeting participants. Navigate to the person to whom you will assign floor and click **OK**. The floor will now be assigned to that participant.

Terminal Names

About Terminal Names

You may want to see a list of all the participants in a MultiSite video meeting. For this purpose there is a list of the terminal names available.

Displaying Terminal Names

1. In a MultiSite call (a video meeting) click **OK** to display the menu and navigate to **Services**.

2. Click **OK** to enter the submenu and navigate to **Terminal Names**.

3. Click **OK** to display a list of the meeting participants. Select **Back** and click **OK** to exit in the usual manner.

About Layout

When you are the host of a MultiSite video meeting, you have control of the main conference image layout. The layout chosen by you is transmitted to the other participants as a single image and its layout cannot be changed by them. However, they may configure their own screen using the **Layout** button on the Remote Control. Their choices are the image you send out in full screen or as side-by-side: your image and their selfview.

The Layout Options Available

Auto Split will give you the best screen layout given the number of participants.

4-split divides the screen into four images of equal size.

5+1 provides 1 large and 4 smaller images.

Voice switched will cause the participant speaking loudest to get the floor in full screen.

Setting Display Layout

1. In a MultiSite call (a video meeting) click **OK** to display the menu and navigate to **Services**.

2. Click **OK** to enter the submenu and navigate to **Layout**.

3. Click **OK** to enter the **Layout** options menu. Details on the Layout options are found above.

Control Panel

We recommend that you check out the TANDBERG web site regularly for updated versions of this manual:

http://www.tandberg.net/support/documentation.php

In order to provide you with the expected high level of TANDBERG video conferencing quality, the unit needs to be configured properly.

This section explains the details of the Control Panel.

Please observe that the Settings may be password protected. A password will then be needed to gain access to the settings described in this section.

The Remote Control

MIC OFF turns your microphone on and off.

Press **OK/MENU** to show the menu and select menu items.

VOLUME + and **–** adjusts the volume.

LAYOUT KEY toggles between full screen and different display layouts.

Press the **CALL** key to place a call.

PRESETS Not used.

The **ALPHANUMERICAL KEYPAD** functions in the same manner as a cellular phone.

SNAPSHOT takes a snapshot, but only during a call.

PRESENTATION KEY switches to a predefined presentation source. If the Presentation key is held down for 1 second then the Presentation video sources menu will appear.

ARROW KEYS are used to navigate in the menus.

Use **ZOOM +** and **–** to zoom the camera in and out.

SELFVIEW displays your outgoing video. Press again to turn off.

CANCEL takes you back one step in the menu system, i.e. to leave a menu undoing any changes. Use **CANCEL** to delete characters in an input field. Press and hold the **CANCEL** key for 1 second to close the menu.

Use the **END CALL** key to end the current call. Pressing this key when not in a call will place the system in Standby mode.

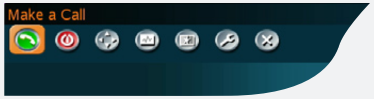
Use the **PHONE BOOK** to store and recall video contacts for easy placement of calls.

Press **TOUCH TONES** when you are in a call and need to dial extension numbers etc. Press the **OK/MENU** button to exit **TOUCH TONES**.

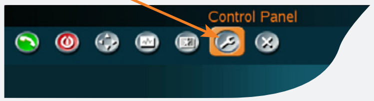
An Overview of the Control Panel

GETTING TO THIS MENU

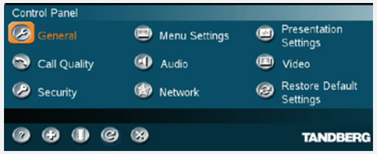
1. Press **OK** to produce the below menu.



2. Use the **Arrow** keys to move to the **Control Panel** and press **OK**.



3. The **Control Panel** will now be displayed.

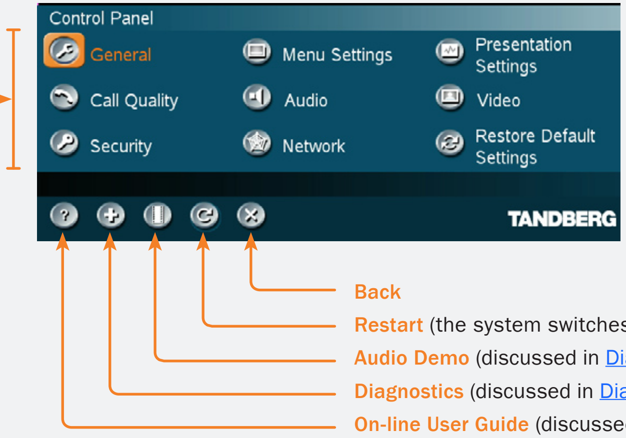


LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

Control Panel Options

The different parts of the Control Panel are explained on the following pages.

Control Panel settings



Back

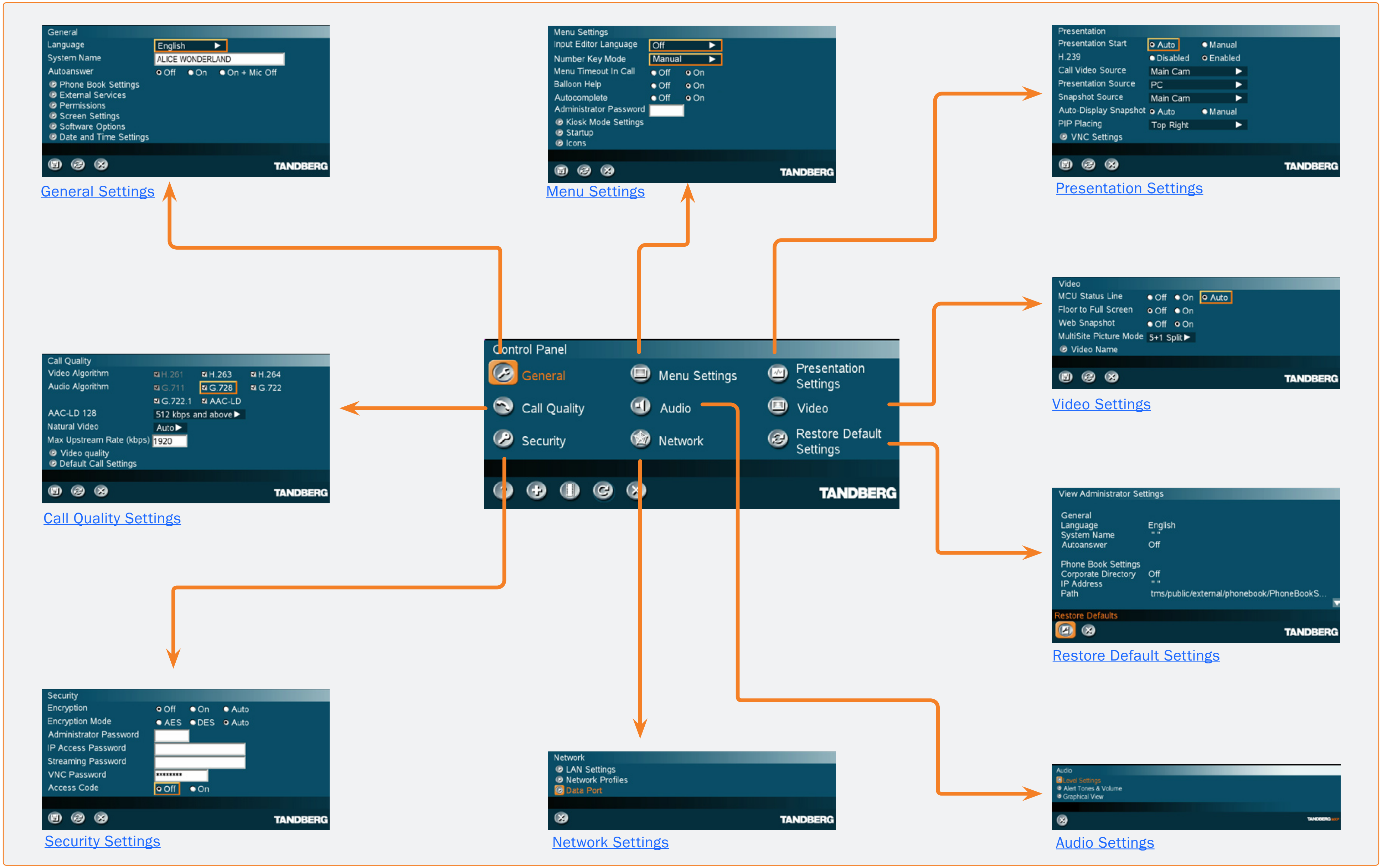
Restart (the system switches itself OFF and ON again)

Audio Demo (discussed in Diagnostics at the end of this section)

Diagnostics (discussed in Diagnostics at the end of this section)

On-line User Guide (discussed in Diagnostics at the end of this section).

An Overview of the Control Panel Settings



Password Protection of the Control Panel Settings

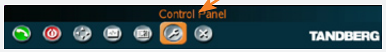
Password Protection

All settings of the Control Panel may be password protected by a pin code consisting of up to five digits.

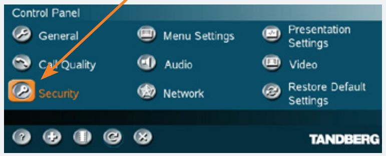
Whenever you click the **Settings** icon in the Control Panel, you will prompted to key in this pin code in order to gain access to the settings.

Set a Password

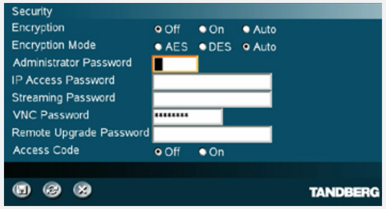
1. Use the **Arrow** keys of the remote control to navigate to the **Control Panel** icon and press **OK**.



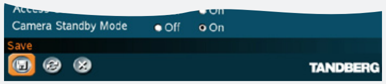
2. Navigate to the **Security** icon and press **OK**.



3. Navigate to the **Adminstrator Password** and key in a password (pin code).



4. Navigate to the **Save** icon and press **OK** to leave menu, putting changes into effect.



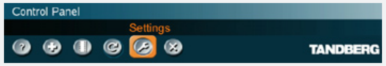
Clear an Existing Password

1. Log in the same way as when gaining access to a password protected Control Panel Settings menu.
2. Navigate to the **Security Settings** menu, in the same way as setting the password.
3. In the **Control Panel Password** parameter field, use the **Cancel** key to clear the password and navigate down to the **Save** icon to leave menu putting changes into effect.

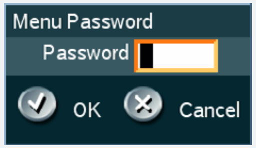
Gain Access to a Password Protected Control Panel Settings Menu

1. Use the **Arrow** keys of the remote control to navigate to the **Control Panel** icon and press **OK**.

2. In the **Control Panel** navigate to the **Settings** and press **OK**.



3. You will now be prompted for a password.



4. Key in the password.

If the wrong pin code is entered, the message

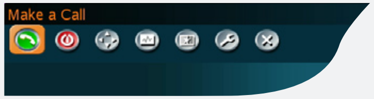
Attention
Wrong menu password

will appear on the screen.

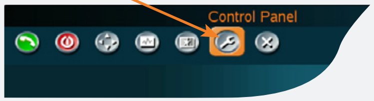
General Settings – an Overview

GETTING TO THIS MENU

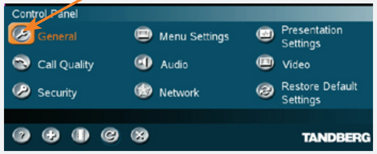
1. Press OK to produce the below menu.



2. Use the Arrow keys to move to the Control Panel.



3. Press OK and use the Arrow keys to move to General. Press OK.



LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

PHONE BOOK SETTINGS
The use of Corporate Directories in combination with a management system makes phone book updates easy to do and eliminates the need for entering directory information on each one of the video conferencing units in a company.

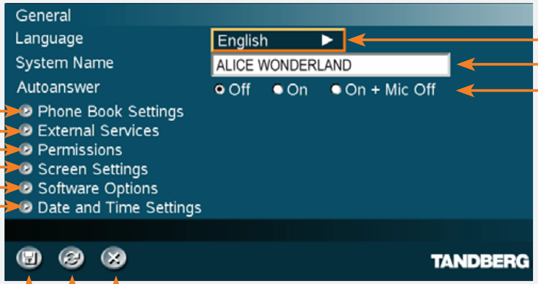
EXTERNAL SERVICES
There may be external services available for your system extending the functionality. Consult your IP service provider or your administrator for details.

PERMISSIONS
Lets you specify settings for incoming MCU Calls, and Far End Control.

SCREEN SETTINGS
Lets you specify the picture layout including features like picture in picture and monitor format.

SOFTWARE OPTIONS
Your system may or may not have certain optional features activated. Activation requires a code to be entered. Use this menu for actviation of optional features.

DATE AND TIME SETTINGS
This menu lets you set the date and time correctly, including time zone and daylight saving time, if applicable.



CANCEL
Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press OK to restore the default settings.

SAVE
Select this icon and press OK to leave the menu putting changes into effect.

LANGUAGE
Set the language used in the menus. Choose between English, Deutsch, Français, Italiano, Norsk, Svenska, Español, Português, Русский, Suomi, Chinese, Chinese traditional, Korean, Japanese, and Thai.

SYSTEM NAME
Identifies the system.

INTERNATIONAL NAME
(Not shown) If the System Name contains Asian and non-standard ASCII character text input (includes even languages like Norwegian, French, Polish etc.), an International Name using standard ASCII characters only, must be specified as well.

If you set the language to e.g. Korean and input a System Name using Korean characters, a second line allowing you to specify the name using standard ASCII character set will appear.

AUTO ANSWER
Controls whether incoming calls should be let through automatically or require a manual answer.

If set to automatic, you may choose to always disable your microphone when the call is connected. You must then use the Remote Control to switch it back on manually to let the other side hear you.

Language

LANGUAGE

Set the language used in the menus. Choose between English, Deutsch, Français, Italiano, Norsk, Svenska, Español, Português, Русский, Suomi, Chinese, Chinese traditional, Korean, Japanese, and Thai.

Moving up and down in menu.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

INTERNATIONAL NAME

If the System Name contains Asian and non-standard ASCII character text input (includes even languages like Norwegian, French, Polish etc.), an International Name using standard ASCII characters only, must be specified as well.

If you set the language to e.g. Korean and input a System Name using Korean characters, a second line allowing you to specify the name using standard ASCII character set will appear.

Tip! When the Input Editor Language is set to Chinese, Korean or Japanese you will be able to enter Chinese / Korean / Japanese characters into an input field like the System Name or Phone Book, using the remote control.

LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

System Name Settings

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

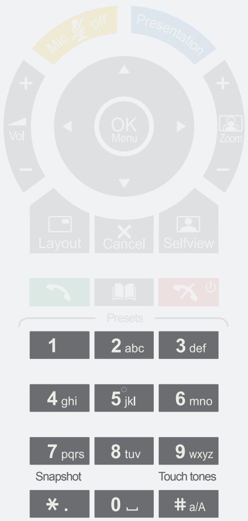
SYSTEM NAME
Identifies the system:

- On the welcome screen of your system
- During an MCU conference call
- When using the Web-interface
- When the codec is acting as an SNMP Agent
- Towards a DHCP server
- As H323 ID. If H.323 ID is configured in H.323 settings, it will be used instead of System Name.

System Name is blank by default, can be alphanumeric, and up to 50 characters long.

ENTERING A SYSTEM NAME
Whenever alphanumerical entries are expected by the system, a small ABC appears in the right lower corner of the entry field.

In this mode, entries from the **Numerical keypad** are automatically interpreted as alphanumeric entries in the same way as on a cellular phone.



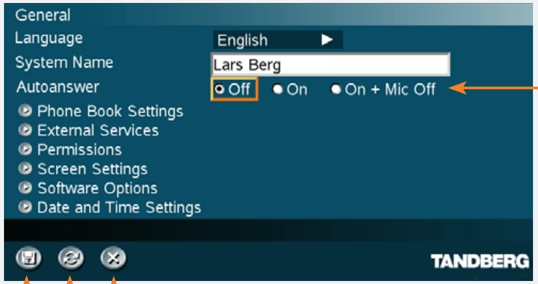
Guidelines:

- Press the key that corresponds to the required letter.
- Press the key as many times as needed to access the correct letter.
- Change to lower or back to upper case letters with the # a/A key, and space with the 0 _ key.
- To write numbers in a text input field, repeatedly press the corresponding key a number of times until the digit appears.

INTERNATIONAL NAME
If the System Name contains Asian and non-standard ASCII character text input (includes even languages like Norwegian, French, Polish etc.), an International Name using standard ASCII characters only, must be specified as well.

If you set the language to e.g. Korean and input a System Name using Korean characters, the International Name field allowing you to specify the name using standard ASCII character set will appear.

Autoanswer



AUTOANSWER
The autoanswer setting determines whether an incoming call is put through automatically or manually.

On. The system will automatically answer all incoming calls.

On+Mic Off. The system will automatically answer all incoming calls and switch the microphone off when the call is connected. Press **Mic Off** on the Remote Control to switch the microphone back on.

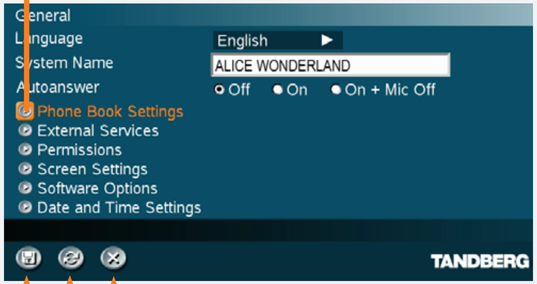
Off. You must manually answer all incoming calls by pressing **OK** or the **Call** key on the Remote Control.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

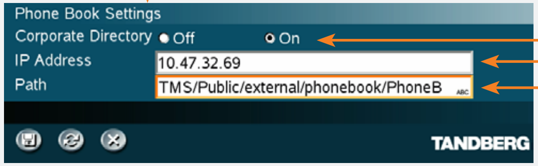
Phone Book Settings



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.



What is Corporate Directory? Your system may be connected to a Directory Service or Management System such as the TANDBERG Management Suite (TMS). The Management System may then provide your video system with a phone book containing a corporate directory. This directory is controlled directly from the Management System and updates and changes are carried out from remote by the Mangement System Adminstrator.

Note! Any contacts that you choose to copy to your local phone book (My Contacts), e.g. for use in your own predefined MultiSite Contacts, will not be updated when the Corporate directory is updated by the Mangement System Adminstrator.

CORPORATE DIRECTORY

On The Corporate Directory is available in the menu.

Off The Corporate Directory is hidden from the menu and is unavailable for users.

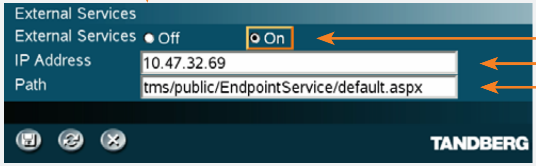
IP ADDRESS

Enter the IP address or the DNS name of the Directory Service that provides the Phone Book.

PATH

The Path to the phone book of the Directory Service.

External Services



EXTERNAL SERVICES

On Set this to **On** when External Services are available.

Off Set this to **Off** when External Services are unavailable.

IP ADDRESS

Enter the IP address or DNS name of the Service Provider Host for External Services.

PATH

Enter the Path to the External Services Host.

The services available are defined by your service provider.

What is External Services? In general, External Services include any HTTP and HTML based contents your Service Provider may offer. This could be stock exchange information, news, weather forecast etc.

In addition, External Services may include the ability to display scheduled meetings for the video system (handy when meetings last longer than scheduled and you need to know whether, and if affirmative, when the system is booked for other meetings).

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

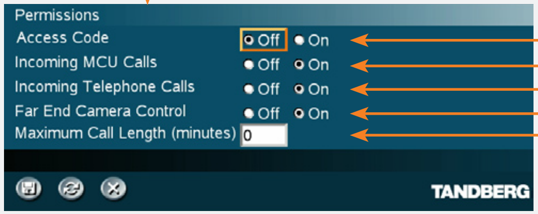
RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

Permissions



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

WHAT IS MCU? MCU is short for Multipoint Conference Unit, a device used to connect multiple audio and video sites in one or more ISDN, IP and mixed ISDN and IP video meetings.

ACCESS CODE

An access code will help you control the use of the system. All users must enter a code to identify themselves when making a call and the call may then be charged on their account. Access Codes are handy for group systems where there are more users or divisions that share the costs of using the system. Access Code can be set to **On** and **Off**. More on Access codes overleaf.

On When making a call, an Access Code dialogue box will be shown. The user must enter the correct password in order to put the call through.

Off No password is necessary to make a call.

INCOMING MCU CALLS

On When you are in a call, the system will provide visual and audible indications of additional incoming calls and ask you to accept/reject the call.

Off The system will not accept incoming calls when you are in a call.

INCOMING TELEPHONE CALLS

On The system will accept incoming telephone calls.

Off The system will not accept incoming telephone calls. This may be used to prevent incoming calls from systems other than videoconferencing systems.

FAR END CAMERA CONTROL

On The far end will be able to:

- Select your video sources
- Request snapshots

Off The far end can access none of the four features above on the local system. You will however still be able to control the camera on the far end.

MAXIMUM CALL LENGTH (minutes)

This feature will automatically end both incoming and outgoing calls when the call time exceeds the specified **Maximum Call Length**. **Maximum Call Length** can have the following values: **0**–999 (minutes), where **0** means **OFF**.

Access Codes

About Access Code Applications

As an administrator you may set up the system to request codes to be entered before a call can be made. These codes are referred to as Access Codes and can be used to define the types of calls made (internal/external/to an invoicable client etc.).

In this way you may gather call statistics, which in turn can be used for analysis, to bill external clients, or to bill different groups of users within your company.

Access codes may be made compulsory and restricted in the sense that only a certain set of valid access codes is available.

A valid code must then be entered before a call can be made.

Alternatively, access codes may be made compulsory, but without restriction. You will then still be prompted to key in an access code. No call can be made without access code entered even here, but in this case you may – literally speaking – key in any code you want.

Kindly observe that restricting the access codes to a limited set of valid codes is by no means a prerequisite for billing.

Consider the following: Your system may have been configured to work in a setup involving a TMS (TANDBERG Management Suite) system. As default, your system then transmits call information to TMS. This information includes any access codes applied to the calls. Hence, the TMS system may always utilize any access code information available, for statistics and for billing.

To make access codes compulsory, set Access Codes to On in the menu. To restrict the valid code space to a certain set of predefined codes, an access code text file must be uploaded to your local video system – see side bars to the right.

If no such file exists in the system and Access Codes still is set to On, the system will prompt you to key in an access code, but any code will do. No call can be made without an access code being keyed in.

To skip the whole thing, set Access Codes to Off. No prompt for code entry will then be produced by the video system.

Defining and Uploading Access Codes

For systems with Access Codes set to On, you – as a user – will be asked to enter a code, otherwise you won't be able to make a call.

Your video system will check if the entered access code is valid by comparing the code with the allowed codes listed in the `access.txt` file located on the ftp-server in your local video system.

If no `access.txt` file has been uploaded to the Codec of your local video system, the code entered will be registered, but no validation will take place. E.g. you can enter whatever code you want and still have access to the system. Note, however, that you must enter a code whenever Access Codes has been set to On in the video system.

The `access.txt` file is a plain text file with one line per access code.

As an example of an `access.txt` file, consider the following:

```
1234
1250
A1
B2
ABC
```

Maximum length of each access code is 16 characters, and you can have as many access codes as you want. You may use any combination of the alphanumeric characters available by means of your TANDBERG Remote Control, including the space character.

To upload access codes to the system, follow these steps:

On your PC create the file to be used as a list of valid access codes and save it as `access.txt`

Make sure your PC and your video system can communicate via IP

Open a DOS-window and go to the folder where the `access.txt` file is located

Type `ftp` <IP-address of your local video system>. To locate the IP address of your system, press the OK/Menu key on your TANDBERG Remote Control

When system prompts for `User:` press Enter or key in the IP-password of your video system

Type `bin` and press Enter

Go to the user folder, type `cd user`

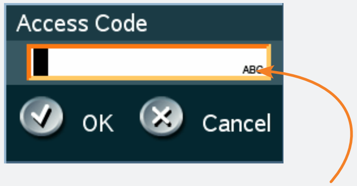
Upload the `access.txt` file, type `put access.txt`

Exit from ftp, type `bye`

Access Codes Activated – How It Looks

Whenever the Access Codes feature has been set to On, you will be prompted to enter a code when starting a call.

The following dialogue box appears on the screen:

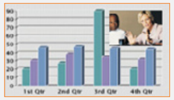


The remote control keypad will be in ABC mode.

Key in the code and press OK. Then dial your number.

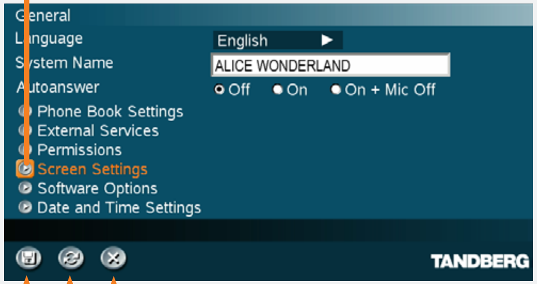
Tip! Access Codes can be set and controlled from TMS as well! If you run a TANDBERG Management Suite, you will be able to control and maintain access codes from within the Management Suite.

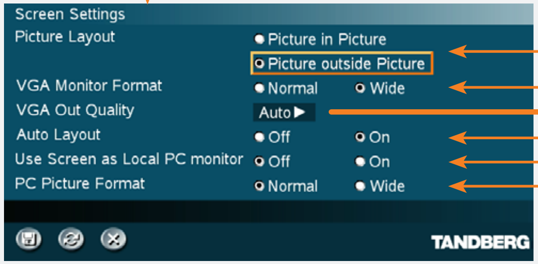
Screen Settings



Picture-in-Picture example

Picture-outside-Picture example





CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

PC PICTURE FORMAT

Takes effect only when **VGA Monitor Format** is set to **Wide**. Use this setting to determine if you want your PC presentations to be shown stretched in full screen, or with correct aspect ratio using part of the widescreen display. With the **VGA Out Quality** set to **Auto** the presentation will be of the best possible quality supported by the monitor. **Normal** is 4:3 format, **Wide** is 16:9 format.

USE SCREEN AS LOCAL PC MONITOR

Use the **Selfview** button of the Remote Control to switch from local PC display to standard conference layout.

If Local PC Display is **ON** you will be able to have Local PC displayed both outside and within a call.

If Local PC Display is **OFF** you will not be able to see a Local PC image.

PICTURE LAYOUT

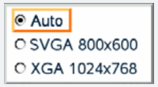
The **Picture Layout** is related to the **Layout** button on the remote control and it can be used at any time to change the screen layout. For wide screen systems POP mode is recommended. You will get optimized picture layouts for wide screen by pressing the **Layout** button on the remote.

Picture in Picture (PIP). Pressing the **Layout** button on the remote will result in an extra picture in smaller view (Picture in Picture). Press the **Layout** button to move it around in the corners of the screen and finally hide it. Pressing and holding **Layout** for 1 second will hide the small picture directly from any position.

Picture outside Picture (POP). Press the **Layout** button to see the images side-by-side, e.g. 1+1 layout, where the far end and near end are displayed as images of equal size. Press again to see a 1+2 layout and a 1+3 layout and finally back to fullscreen.

VGA MONITOR FORMAT

To fully leverage your wide screen display, set the **VGA Monitor Format** to wide. **Normal** is 4:3 format, while **Wide** is 16:9 format.



VGA OUT QUALITY

Auto. VGA output format will be optimized depending on video source format, refresh rate and EDID information available.

Formats available. SVGA (800×600) @ 75 Hz, XGA (1024×768 @ 60/75 Hz, and WXGA (1280×768) @ 60 Hz.

AUTO LAYOUT

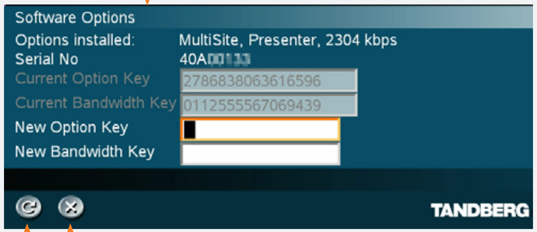
On If **Auto Layout** is **ON** the system will change layouts automatically depending on the number of participants in a call and if you have a dual video stream or not.

Off If **Auto Layout** is **OFF** there will be no automatic layout changes during a call. All desired layout changes must be done manually with the **Layout** button.

Note! When receiving low resolution images (176×144 pixels or less) the screen will automatically adjust to a smaller view to give optimum quality experience.

Software Options

The system has a modular design allowing you to add functionality when you need it. This functional expansion requires codes available through your TANDBERG Representative.



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

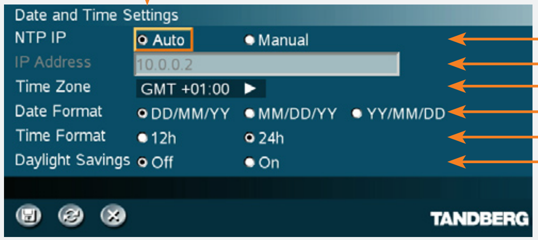
RESTART
Select this icon and press **OK** to restart the system, putting changes into effect.

The system requires a valid option key to activate MultiSite and/or Presenter functionality. In order to activate additional bandwidth, you need to enter a bandwidth key. A restart of the system is required after entering a new option and/or bandwidth keys. If the key is invalid, the original key will be used.

The following options are available:

1. No option
2. Presenter
3. MultiSite + Presenter
4. Bandwidth options

Date and Time Settings



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

NTP IP
This is the NTP time server address from which the system can get updated time information. See [IP Services] for more details.

Auto. The NTP IP address is set automatically.

Manual. The NTP IP address is set manually.

IP ADDRESS
The IP Address or DNS name for obtaining the date and time information.

TIME ZONE
Select the correct time zone for the location of your system.

DATE FORMAT
Choose between DD/MM/YY, MM/DD/YY, or YY/MM/DD as the preferred date format.

TIME FORMAT
Select 12h or 24h time format.

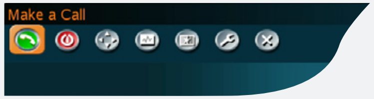
DAYLIGHT SAVINGS
On. Adjust for daylight savings changes.

Off. No adjustments are made for daylight saving changes.

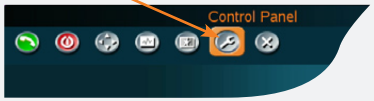
Menu Settings

GETTING TO THIS MENU

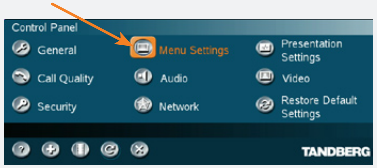
1. Press OK to produce the below menu.



2. Use the Arrow keys to move to the Control Panel and press OK.



3. Use the Arrow keys to move to Menu Settings, if applicable. Press OK.



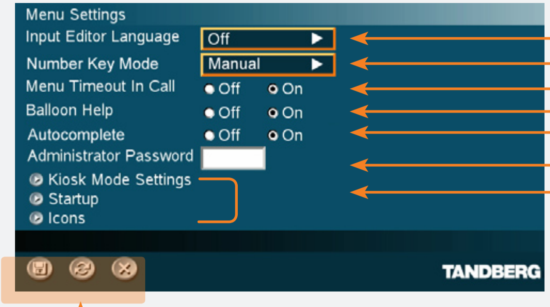
LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

NUMBER KEY MODE

Set this to ON to enable a pop-up menu letting you choose what to do when pressing a number key – choose between Manual, Add another Call, Dial extension number and Use Presets. When set to Manual you will be prompted to choose what to do. Power users may want to switch this off, which is why this menu item exists.

INPUT EDITOR LANGUAGE

When the Input Editor Language is set to Chinese, Korean or Japanese the user will be able to enter Chinese/Korean/Japanese characters into an input field like the System Name or Phone Book, using the remote control. Otherwise this is set to OFF.



See the previous page for details

KIOSK MODE SETTINGS, STARTUP, ICONS

Treated on the following pages.

ADMINISTRATOR PASSWORD

We recommend the use of an Administrator Password on the system. The Administrator Password can be maximum 5 digits long. Once set, you will be prompted to enter the password to gain access to the settings. This will prevent occasional users from going into settings. With a password, you can make sure that your system will behave in the same way every time and that only approved people are allowed to make changes to the system.

MENU TIMEOUT IN CALL

The Main menu appears on the bottom line of the screen. Set Menu Timeout In Call to ON if you want the menu to disappear automatically when you are in a call.

ON. The menu will disappear automatically after 15 seconds if there is no activity on the remote control. Menu timeout applies when you are in a call only. Outside a call, there is no menu timeout.

OFF. The menu will not disappear automatically. Press Cancel to hide the main menu manually.

BALLOON HELP

Used to enable/disable the balloon help window.

ON. Enables help text windows to appear.

OFF. There will be no help text window.

AUTOCOMPLETE

When keying in whom to dial, activating Autocomplete will cause the system to complete your input for you based on what is already in your Phone Book.

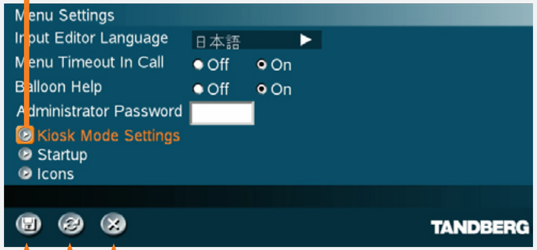
Kiosk Mode Settings

Kiosk Mode

In Kiosk Mode the system is set to a simplified state where it can be controlled with just the Arrow keys and OK. You will get a simplified on-screen menu with only the basic functionality available to:

- Make calls (predefined contacts in phone book only)
- Receive calls
- End calls
- Adjust volume.

Take care! Functionality will be heavily restricted in Kiosk Mode!



CANCEL
Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press OK to restore the default settings.

SAVE
Select this icon and press OK to leave the menu putting changes into effect.

Kiosk mode examples of language menu and call situations.

KIOSK MODE
Set to ON to activate Kiosk Mode. Observe that deactivation can take place thorugh the system's web interface, telnet or data port only.

LANGUAGE MENU
When used in Kiosk Mode you may set the system to prompt you to select language before proceeding. See example below.

When set to ON the system will display the language menu as the first menu in Kiosk mode.

When set to OFF the system will display the welcome menu in English (default).

AVAILABLE LANGUAGES
In Kiosk Mode the system supports 7 different languages for its simplified on-screen menu; English, German, French, Norwegian, Swedish, Italian, and Spanish. Select the preferred language.

PHONE BOOK
Defines whether to use Local Phone Book or Corporate Directory. The latter opens up for remote phone directory upgrades.

KIOSK MENU
Whether the simplified menu shall be shown or not.

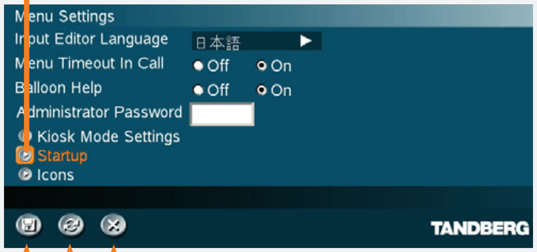
Tip! GETTING OUT OF KIOSK MODE AGAIN. To get out of the Kiosk Mode, you need to hook the unit up to a PC via the serial port, open a telnet session and use the command:

```
xConfiguration Kiosk Mode: <On/Off>
```

For more on this, see the TANDBERG MXP Codec Reference Manual for System Integrators, which can be downloaded from our web site:

http://www.tandberg.net/support/documentation.php?p=Application_Programmer_Interfaces

Startup Settings



CANCEL

Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press OK to restore the default settings.

SAVE

Select this icon and press OK to leave the menu putting changes into effect.

WELCOME TEXT

You can change the welcome text to any text you like, instead of the default text. Please observe that Display Welcome Text must be ON to be able to edit the welcome text.

DISPLAY WELCOME TEXT

The welcome text displays your system name and dial in numbers by default. It is possible to hide this information by choosing Display Welcome Text Off. Set to ON to have Welcome text displayed on the welcome menu and set to OFF to have no Welcome text displayed on the welcome menu.

WELCOME MENU

The Welcome Menu contains the Main Menu, System Status, your System Name and dial-in numbers.

Set to ON to produce the Welcome Menu when the system wakes up from standby mode.

Set to OFF to disable the Welcome Menu when the system wakes up from standby mode. Press the OK button to open the Welcome Menu.

WELCOME PICTURE

The Welcome Picture is what you see in the background of the welcome menu.

Selfview is shown in the background of the welcome menu.

OFF. No picture is shown in the background of the welcome menu.

LOGO

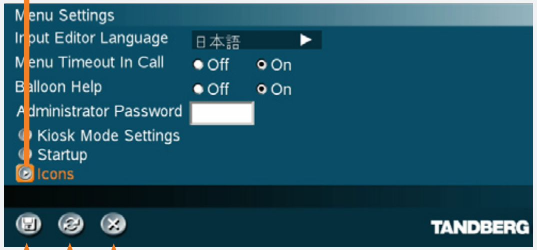
It is possible to upload a company logo to the system. For more information about how to upload a logo, see Web Snapshot.

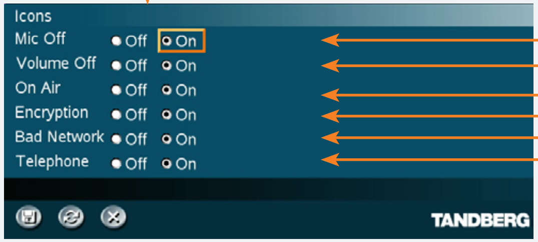
Choose ON to have the company logo appear in the background of the welcome menu.

Set to OFF to have no logo displayed.

Note! The TANDBERG Logo will be displayed if no other company logo is loaded and logo is enabled.

Icons





Note! Icons set to **Off** will not appear!

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

MICROPHONE OFF
This indicator is shown when the microphone is turned off. Press the **Mic off** button again to turn the microphone back on.

VOLUME OFF
This indicator is shown when the volume is turned off. Press **Volume +** to turn the volume back on.

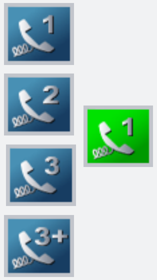
ON AIR
When you have the floor in a multisite conference this is indicated by the On Air icon.

SECURE CONFERENCE, AES
This double padlock indicator is shown when AES encryption (Secure Conference) is active.

SECURE CONFERENCE, DES
This padlock indicator is shown when DES encryption (Secure Conference) is active.

NOT SECURE CONFERENCE
This open padlock indicator is shown during the initialization phase for AES or DES encryption. During this period the call is not secure.

BAD NETWORK
This indicator appears if the system detects network anomalies like packet loss, jitter etc., during a call. Open the menu by pressing the **OK/Menu** button and select the warnings icon too see details.

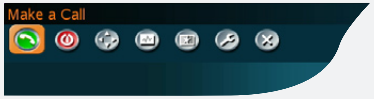


TELEPHONE
This indicator is shown when there also are telephone only participants in a multisite conference. Indications are given for 1, 2, 3 or more than 3 participants. Icons turn green when a telephone participant has the floor.

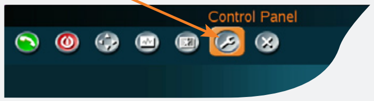
Presentation Settings – an Overview

GETTING TO THIS MENU

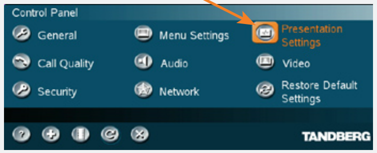
1. Press OK to produce the below menu.



2. Use the Arrow keys to move to the Control Panel and press OK.



3. Use the Arrow keys to move to Presentation Settings, if applicable. Press OK.



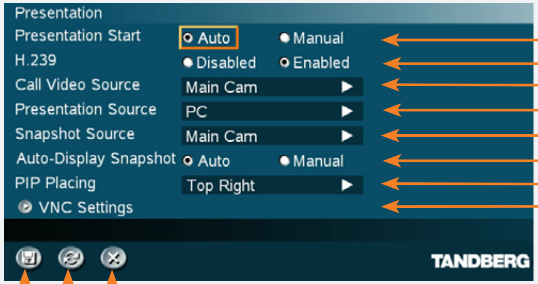
LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

PRESENTATION START

Your system has optional Dual Video Stream capabilities, which means that you can show two video streams simultaneously.

Presentation Start is Auto by default. This means that you will start Dual Stream (a second video stream) automatically when starting a presentation. Dual Stream requires the Presenter Option and H.263 video. To check which options are installed, see the System Information menu.

Manual means that you manually choose if you want to start Dual Stream or not every time you start a presentation.



CANCEL

Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press OK to restore the default settings.

SAVE

Select this icon and press OK to leave the menu putting changes into effect.

H.239

Supports transmission of two video streams. It combines elements of Duo Video and People+Content. If H.239 is disabled you will still be able to start TANDBERG Dual Video Stream.

CALL VIDEO SOURCE

Default video source used in a call.

PRESENTATION SOURCE

The Presentation Source is connected to the presentation button on the Remote Control. Pressing the Presentation button on the Remote Control will put the Presentation Source on display. Presentation Source is PC by default.

SNAPSHOT SOURCE

When you take a Snapshot, you get a snapshot of the Snapshot Source.

AUTO-DISPLAY SNAPSHOT

Select Auto to automatically display a received snapshot (from the Far End).

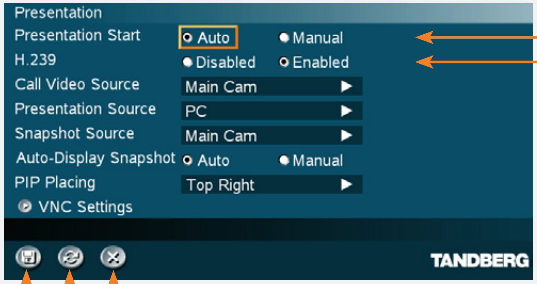
PIP PLACING

A Picture in Picture (PIP) is a smaller picture placed in one of the corners of the screen. The PIP enables you to see an extra picture in your video conference.

VNC SETTINGS

VNC Settings is necessary when using a VNC presentation.

Presentation Start / H239 Enabling



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

PRESENTATION START

Your system has optional Dual Video Stream capabilities, which means that you can show two video streams simultaneously.

Presentation Start is **Auto** by default. This means that you will start Dual Stream (a second video stream) automatically when starting a presentation. Dual Stream requires the Presenter Option and H.263 video. To check which options are installed, see the System Information menu.

Manual means that you manually choose to start Dual Stream or not every time you start a presentation.

To utilize, do as follows:

Auto causes Dual Video Stream to start automatically when you start a presentation (i.e. when you choose a second video source). If your system or the far end system cannot handle Duo Video/ H.239, you will not be using Dual Video Stream, but rather send the presentation source as your Main Video.

Manual. When starting a presentation, select **Presentation** in the call menu and select **StartPresentation**. Choose a video source from the list displayed on the screen.

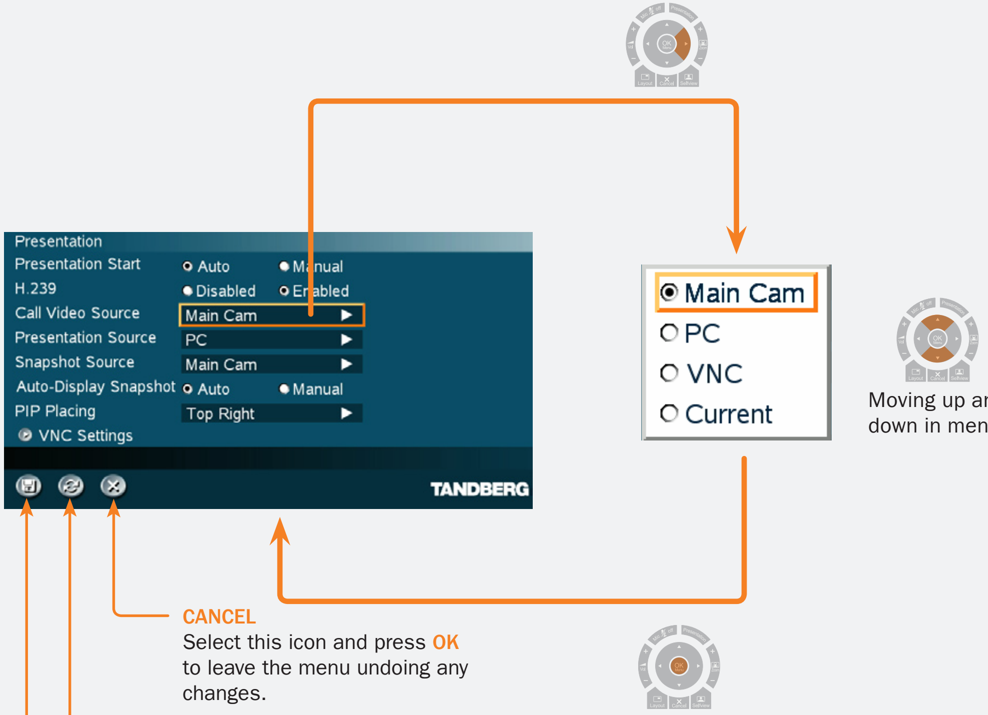
H.239

H.239 supports transmission of two video streams. It combines elements of Duo Video and People+Content. If H.239 is disabled you will still be able to start TANDBERG Dual Video Stream.

Enabled. Enables H.239

Disabled. Disables H.239

Call Video Source



Moving up and down in menu.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

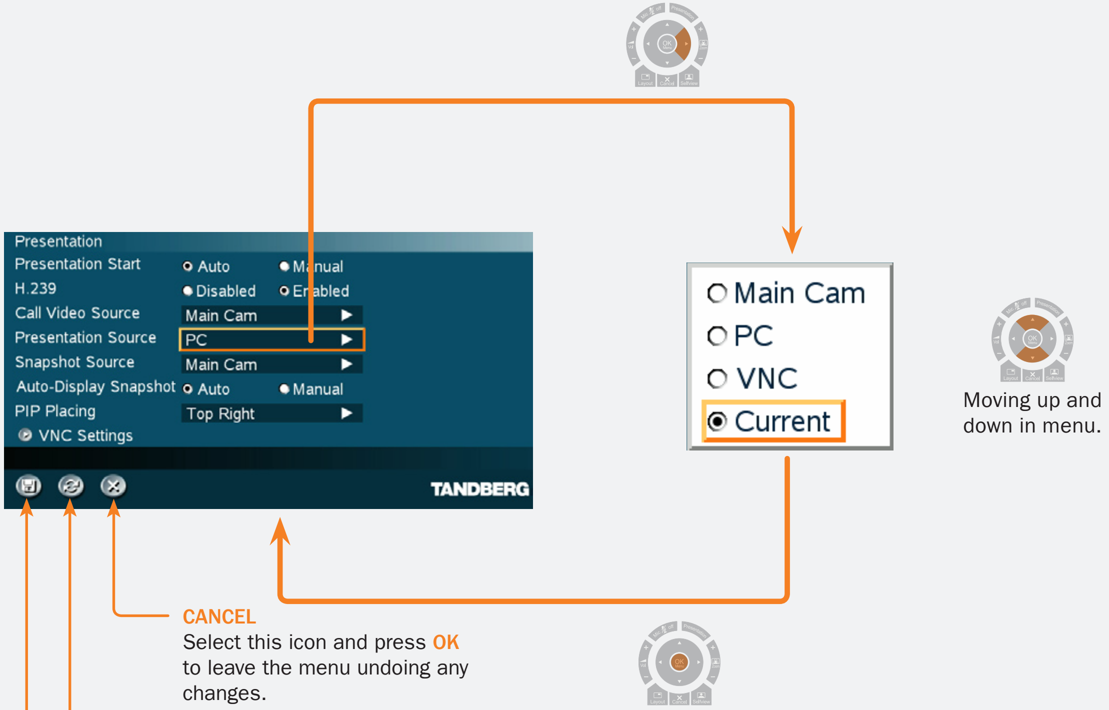
CALL VIDEO SOURCE

The **Call Video Source** is the default video source you would like to use in a call. If you use **Main Camera** as **Call Video Source**, the system will start with **Main Camera** every time you make a call,regardless of what the previous video source was.

TIP! Why you should set Call Video Source to Main Camera: When you are not in a call, you can work with the screen as a normal PC screen. When you make a video call, the system will automatically change to **Main Camera**. Once you receive a call, the system will also automatically change to **Main Camera**, preventing the caller from seeing your PC image.

You can change **Call Video Source** to **Main Camera**, **PC**, **VNC**, or **Current**. Choosing **Current** will result in the last used video source.

Presentation Source



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

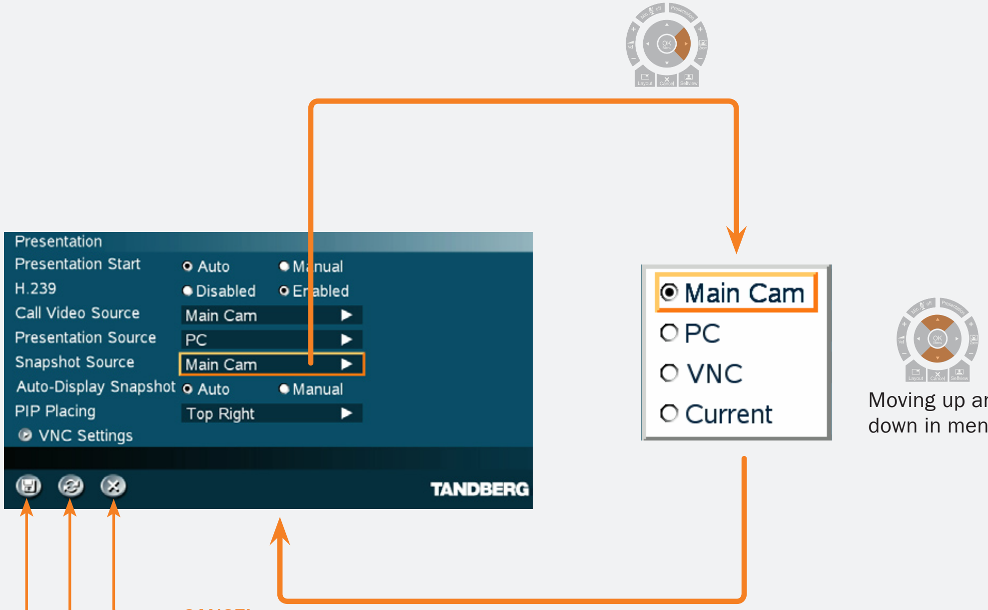
PRESENTATION SOURCE

The **Presentation Source** is connected to the **Presentation** button on the Remote Control. Pressing the **Presentation** button will put the **Presentation Source** on display. **Presentation Source** is PC by default*.

You can change the Presentation Source to any video source or **None**. Choosing **None** results in opening the Presentation menu when pressing the **Presentation** key on the Remote Control.

* Only for systems with the PC video input available.

Snapshot Source



Moving up and down in menu.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

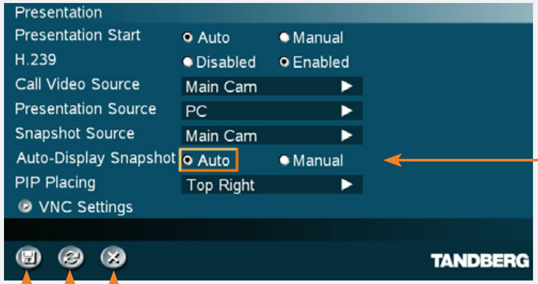
SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

SNAPSHOT SOURCE

When you take a snapshot, this will be from the **Snapshot Source**. **Current** is the default **Snapshot Source**. This means that you take a snapshot of the video source that is currently active.

You can change the **Snapshot Source** to any video source. In this way you can assign the **Snapshot** key to apply only to PC for instance. Press **Snapshot** and you will get a PC snapshot regardless of what video source that is currently active.

Auto-Display Snapshot



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

AUTO-DISPLAY SNAPSHOT

Select **Auto** to automatically display a received snapshot. Set **Auto-Display Snapshot** to **Manual** if you wish not to have them displayed on the screen when they are sent or received. The snapshots will be sent and received, but not displayed. With **Auto-Display Snapshot** set to **Manual**, you must enter the **Presentation** menu to display a snapshot.

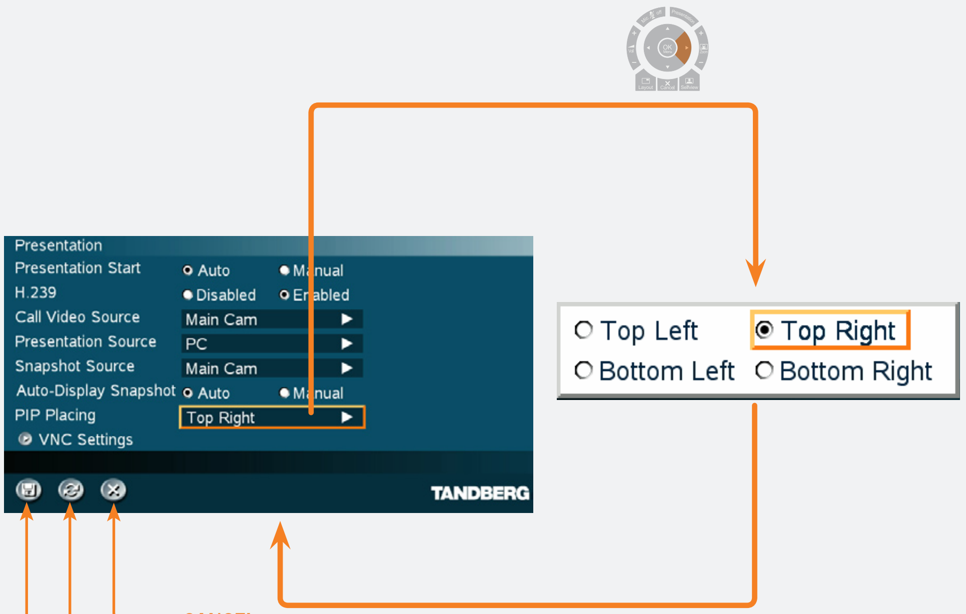
Auto. A sent or received snapshot will automatically be displayed on the screen. This is the default setting.

Manual. A sent or received snapshot will not be displayed on the screen. To see the snapshot, choose **Display Snapshot** in the **Presentation** menu.

PIP Placing

A **Picture in Picture** (PIP) is a smaller picture placed in one of the corners of the screen. The PIP enables you to see an extra picture in your video conference.

A picture in picture can be nice when you use Dual Video Stream and you need an extra window to see all the pictures. You can, of course, show or hide the PIP with the **Layout** button on the remote at any time.



Navigating
in the menu.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

PIP PLACING

This lets you decide where the PIP shall appear. You can, of course, move the PIP with the Layout button on the Remote Control at any time.

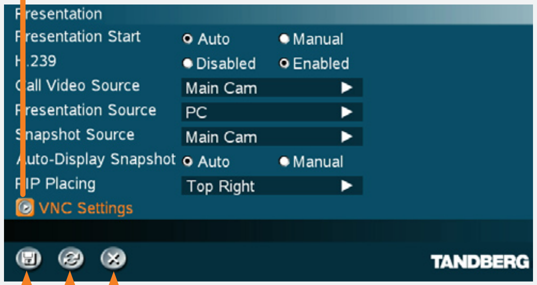
Top Right PIP is placed in the Top Right corner.

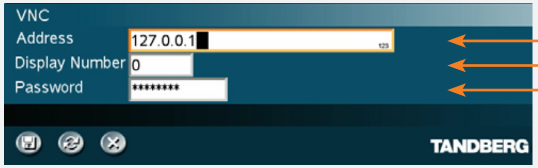
Bottom Right PIP is placed in the Bottom Right corner.

Bottom Left PIP is placed in the Bottom Left corner.

Top Left PIP is placed in the Top Left corner.

VNC Settings





CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

VNC SETTINGS

VNC Settings is necessary when using a VNC presentation. See PC Soft Presenter and VNC for more information on how to use VNC.

ADDRESS

The IP-address of the PC with the VNC software installed. To find the IP-address of the PC, place the mouse pointer on the VNC program icon in the lower right corner of the Windows taskbar. You can also select **Command Prompt** from the **Startup-menu** > **Run** and type `cmd` then **ENTER**. This will open a command window and from here type `ipconfig` and press **ENTER**.

DISPLAY NUMBER

The display number for VNC is 0 and upwards. If you are using WinVNC, double-click on the icon on the taskbar to view WinVNC properties. This number should correspond with Display Number in this menu.

PASSWORD

Enter the same password as specified in WinVNC properties. The password will be shown as asterisk signs (*) the next time you enter the menu.

PC SoftPresenter and VNC

About PC SoftPresenter

PC SoftPresenter is used to display PC images on your system without using a VGA cable (PC Presenter). The system and your PC must be connected to the same LAN. In addition, VNC (Virtual Network Computing) server software must be installed on the PC. Free software can be downloaded from http://www.realvnc.com. Install the software by running the downloaded file.

This is an optional feature – contact your TANDBERG Representative for details.

Configuring the VNC Server Software:

Select the following to setup VNC; **Windows-Start\All Programs\Highlight RealVNC\Hightlight VNC Server\Show User Properties**

Select Accept Socket Connections.

Select **Auto** for Display Number. Display Number in the system must then have the value 0.

Enter a password in the Password-field. This must correspond with the VNC Settings on your system.

Showing PC Contents Using the PC Soft Presenter & VNC

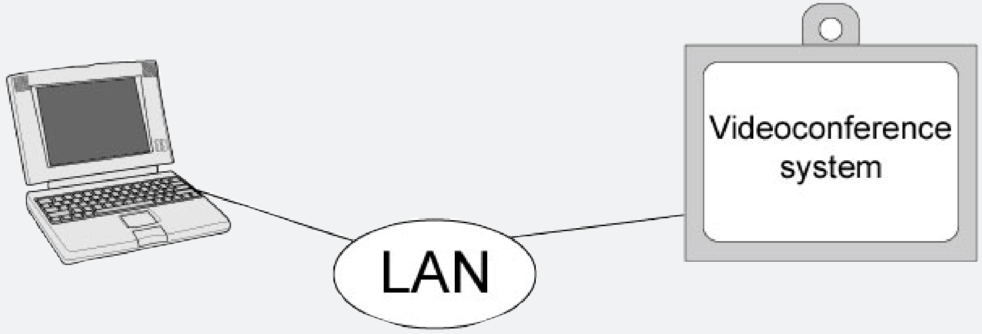
Start the VNC software on your PC.

To use VNC, you must configure VNC Settings. Open **VNC Settings** in the **Presentation Settings** menu (see previous page for details).

Fill in the IP address of your PC, Display Number and Password.

Press **Save**.

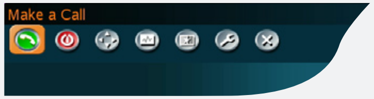
When you now choose VNC as video source in the Presentation menu, you will see your PC using VNC. If a PowerPoint presentation is being displayed then you can scroll through the presentation by pressing the **Vertical Arrow** keys on the remote control. VNC settings will go back to default when the system goes to standby.



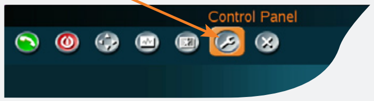
Call Quality Settings – an Overview

GETTING TO THIS MENU

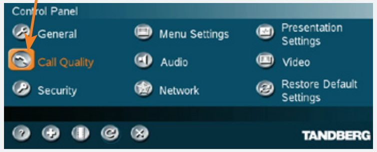
1. Press OK to produce the below menu.



2. Use the Arrow keys to move to the Control Panel and press OK.



3. Use the Arrow keys to move to Call Quality, if applicable. Press OK.



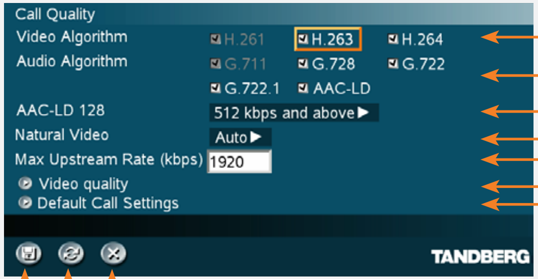
LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

AUDIO ALGORITHM

The system will automatically select the best audio algorithm based on the call rate and the capabilities of the remote system. Use this menu to disable audio algorithms in case you want to remove “low quality” audio, or if you have interoperability issues calling other systems.

VIDEO ALGORITHM

The system will automatically select the best video algorithm based on the video source and the capabilities of the remote system. Use this menu to disable video algorithms in case you have interoperability issues calling other systems.



CANCEL

Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press OK to restore the default settings.

SAVE

Select this icon and press OK to leave the menu putting changes into effect.

AAC-LD 128

Specify a call rate for 128kbps AAC-LD. From this call rate and above, “128kbps AAC-LD” is available. On lower call rates “64kbps AAC-LD” is available.

NATURAL VIDEO

Choosing Natural Video will enable 60 fields per second true interlaced picture for high motion video. The use of Natural Video requires the H.263+ and H.263++ video protocols. Natural video will be disabled in H.323 MultiSite calls and in H.320 Continuous Presence MultiSite calls. Recommended setting is Auto.

MAX UPSTREAM RATE

The Max Upstream Rate (kbps) defines the desired maximum transmitted call rate. This is to be able to limit the outgoing bandwidth whilst keeping the maximum incoming bandwidth, particularly useful for home offices with different upstream and downstream rates, typically ADSL.

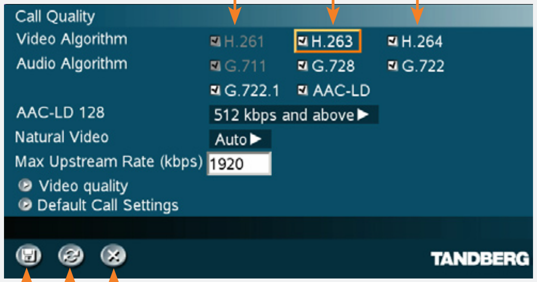
VIDEO QUALITY

The different video sources need different Video Quality Settings. Main Camera, VCR, AUX and Split Screen have Motion as default. PC, Document Camera and VNC have Sharpness as default.

DEFAULT CALL SETTINGS

Default Call Settings are connected with Call Settings in the call menu. If you leave Call Settings unchanged when making a call, the system will use the Default Call Settings in the call.

Video Algorithm



VIDEO ALGORITHM

The system will automatically select the best video algorithm based on the video source and the capabilities of the remote system. Use this menu to disable video algorithms in case you have interoperability issues when calling other systems.

H.261

Legacy video compression and decompression. The system will always have H.261 enabled. Consequently, there is no way of unchecking H.261.

H.263

Normal video compression and decompression.

H.264

Bandwidth efficient video compression and decompression

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

Audio Algorithm

AUDIO ALGORITHM

The system will automatically select the best audio algorithm based on the call rate and the capabilities of the remote system. Use this menu to disable audio algorithms in case you want to remove "low quality" audio, or if you have interoperability issues calling other systems.

G.711

Normal quality audio (telephone quality 3.1kHz at 64kbps). This audio algorithm is mandatory for video conferencing equipment and is impossible to uncheck.

G.728

Compressed normal quality audio (telephone quality, 3.1 kHz at 16kbps)

G.722

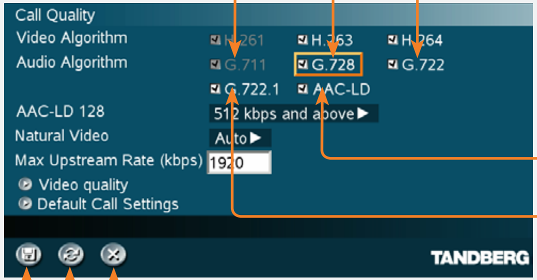
High quality audio (7 kHz at 48kbps, 56kbps or 64kbps)

AACLD

CD-quality audio, MPEG-4 Advanced Audio Coding Low Delay (20 kHz, stereo at 128kbps, mono at 64kbps).

G.722.1

Compressed high quality audio (7 kHz at 24kbps, 32kbps and 48kbps).



CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

CALL RATE VS AUDIO ALGORITHMS SELECTED

Modify/remove algorithms used by unchecking the different audio algorithms.

Automatically preferred audio algorithms on call rates up to and including 192kbps

1. G.722.1 (24kbps or 32kbps)
2. G.728 (16kbps)
3. AAC-LD (64kbps or 56kbps)
4. G.722 (56kbps, 64kbps or 48kbps)*
5. G.711 (64kbps, 56kbps or 48kbps)**
6. AAC-LD (48kbps or 128kbps)

Automatically preferred audio algorithms on call rates above 192kbps

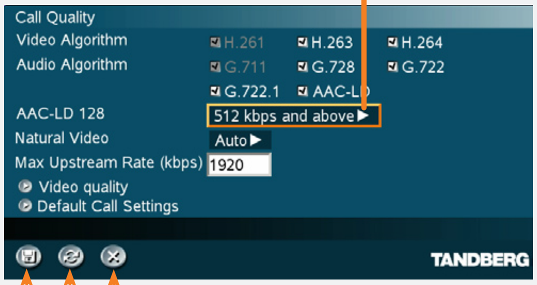
1. AAC-LD (128kbps)***
2. AAC-LD (64kbps or 56kbps)
3. G.722 (64kbps, 56kbps or 48kbps)*
4. G.722.1 (32kbps or 24kbps)
5. G.728 (16kbps)
6. G.711 (64kbps, 56kbps, 48kbps)**
7. AAC-LD (48kbps or 128kbps)

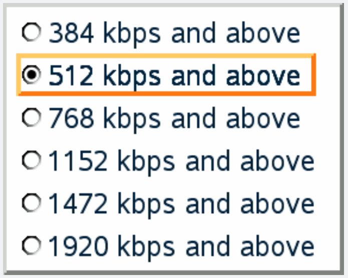
* G.722 at 64kbps is used in H.323 (IP) calls only.

** G.711 at 64kbps is used in SIP and H.323 (IP) calls only.

*** Dependent on a call rate above the AAC-LD 128 threshold. Note that this is not available on all TANDBERG systems.

AAC-LD 128 kbps (Stereo Audio)





Moving up and down in menu.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

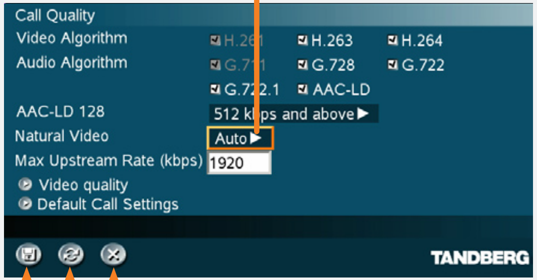
SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

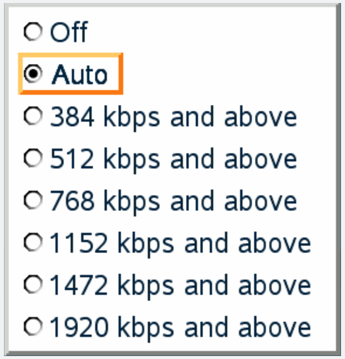
AAC-LD 128 KBPS (STEREO AUDIO)

Specify a call rate for **128 kbps AAC-LD**. From this call rate and above, “128 kbps AAC-LD” is available. On lower call rates “64kbps AAC-LD” is available.

Stereo audio requires twice the bandwidth as mono CD-quality audio. We therefore recommend to enable stereo audio on high call rates only. To enable stereo CD-quality audio you need to specify a call rate for when stereo automatically should be enabled. On lower call rates, mono CD-quality audio “64kbps AAC-LD” will be enabled. Stereo audio can be received and listened to from e.g. a VCR or DVD. However, only when the microphone has been set to Off.

Natural Video





Moving up and down in menu.

CANCEL
Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press OK to restore the default settings.

SAVE
Select this icon and press OK to leave the menu putting changes into effect.

NATURAL VIDEO

Choosing Natural Video will enable 60 fields* per second true interlaced picture for high motion video. The use of Natural Video requires the H.263+ and H.263++ video protocols. Natural video will be disabled in H.323 MultiSite calls and in H.320 Continuous Presence MultiSite calls.

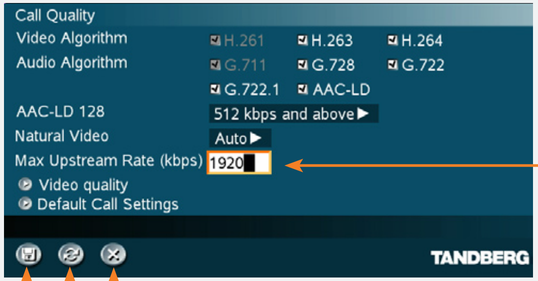
Auto Natural Video. Auto will enable transmission of Natural Video from 768 kbps and above**. Reception of Natural Video is in this case always enabled.

Off Natural Video Off will disable both transmission and reception of Natural Video.

Custom 384 kbps and above to 1920 kbps and above.

* 50 fields per second on PAL systems.
** Will transmit 448p if supported by far end system.

Maximum Upstream Rate (kbps)



MAX UPSTREAM RATE (kbps)

The **Max Upstream Rate (kbps)** defines your wanted maximum transmitted call rate. In this way you may limit the outgoing bandwidth whilst keeping the maximum incoming bandwidth – a feature quite useful for home office applications with different upstream and downstream rates, typically ADSL.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

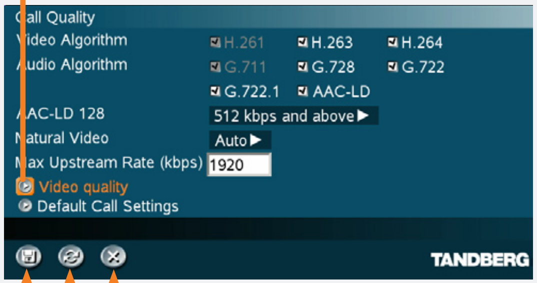
RESTORE DEFAULTS

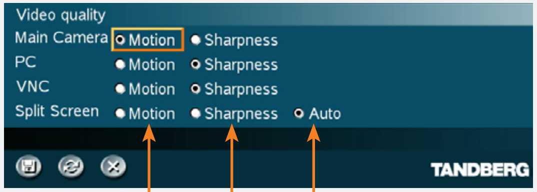
Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

Video Quality





CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

VIDEO QUALITY

Different video sources need different Video Quality Settings. Main Camera, VCR, AUX and Split Screen have **Motion** as default. PC, Document Camera and VNC have **Sharpness** as default.

Auto. The system chooses the best of Motion or Sharpness depending on picture layout and bandwidth.

Sharpness. Optimized for sharp video (4CIF/4SIF, SVGA, XGA, w720p).

Motion. Optimized for smooth motion video (CIF/SIF or w288p for low bandwidths, 448p/400p, Interlaced CIF (iCIF) / Interlaced SIF (iSIF) or w448p for high bandwidths).

More on this can be found overleaf.

About Intelligent Video Management (IVM) on TANDBERG Systems

Intelligent Video Management (IVM)

You may configure the picture sent from your TANDBERG system depending upon specific requirements and applications adding an additional level of flexibility and adaptability.

Generally, the IVM will always try to transmit the format closest to the video input format. Each video input can be configured to either motion or sharpness:

Motion

When there is a need for higher frame rates, typically when a large number of participants are present or when there is a lot of motion in the picture.

At low bit rate:

- CIF will be used from a PAL video input
- SIF from NTSC
- w288p from wide format (HD720p) input
- VGA/SVGA/XGA from PC, Digital Clarity.

At high bit rate:

- 448p will be used from a PAL video input if Natural Video is Off or Auto or if Natural Video is x kbps and the bit rate is lower than x kbps
- 400p from NTSC if Natural Video is Off or Auto or if Natural Video is x kbps and the bit rate is lower than x kbps
- iCIF will be used from a PAL video input, if Natural Video is x kbps and the bit rate is higher than or equal to x kbps
- iSIF from NTSC, if Natural Video is x kbps and the bit rate is higher than or equal to x kbps
- w448p will be used from a wide format (HD720p) input
- VGA/SVGA/XGA from PC, Digital Clarity.

Sharpness*:

Improved quality of detailed images and graphics, lower frame rate, ideal for enhancing quality at lower bandwidths.

- 4CIF will be used from a PAL video input, Digital Clarity
- 4SIF from NTSC, Digital Clarity
- w720p will be used from a wide format (HD720p) input
- VGA/SVGA/XGA from PC, Digital Clarity.

IVM Resolution

The below table shows the relationship between Transmission modes selected by the system when Motion or Sharpness is set in the Call Quality menu. IVM will use this table to optimize the Video quality, according to the capabilities of the remote system(s):

Basic Video Quality	Video Input	Transmission Mode Selection Rules*
MOTION	PAL	448p -> iCIF@50 -> CIF -> QCIF
MOTION	NTSC	400p -> 448p -> iSIF@60 -> iCIF@60 -> SIF -> CIF -> QCIF
MOTION	VGA	448p -> CIF -> QCIF
MOTION	SVGA	448p -> CIF -> QCIF
MOTION	XGA	448p -> CIF -> QCIF
MOTION	Wide	w448p -> w288p -> CIF -> QCIF
SHARPNESS	PAL	4CIF -> VGA -> CIF -> QCIF
SHARPNESS	NTSC	4SIF -> 4CIF -> VGA -> SIF -> CIF -> QCIF
SHARPNESS	VGA	VGA -> 4CIF -> CIF -> QCIF
SHARPNESS	SVGA	SVGA -> XGA -> 4CIF -> VGA -> CIF -> QCIF
SHARPNESS	XGA	XGA -> SVGA -> 4CIF -> VGA -> CIF -> QCIF
SHARPNESS	Wide	w720p -> w576p -> w448p -> w288p -> CIF -> QCIF

Native Resolutions

The following live video resolutions are supported on the system*:

Native NTSC:

- 4SIF (704×480 pixels), Digital Clarity
- 400p (528×400 pixels)
- iSIF (352×480 pixels), Natural Video
- SIF (352×240 pixels).

Native PAL:

- 4CIF (704×576 pixels), Digital Clarity
- 448p (576×448)
- iCIF (352×576 pixels), Natural Video
- CIF (352×288 pixels)
- QCIF (176×144 pixels)
- SQCIF (128×96 pixels).

Native PC Resolutions:

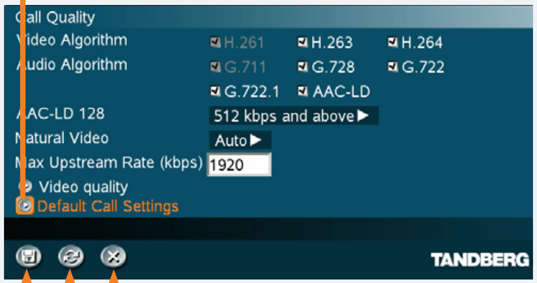
- XGA (1024×768 pixels), Digital Clarity
- SVGA (800×600 pixels), Digital Clarity
- VGA (640×480 pixels), Digital Clarity.

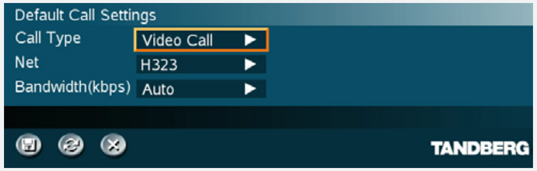
Wide (16:9) Resolutions:

- w288p (512×288 pixels)
- w448p (768×448 pixels)
- w576p (1024×576 pixels)
- w720p (1280×720 pixels).

* Note that the TANDBERG 550*MXP* and the TANDBERG 1000*MXP* do not transmit the following video formats: 448p, 400p, iCIF, iSIF, w288p, w448p, w576p, and w720p.

Default Call Settings – an Overview





CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

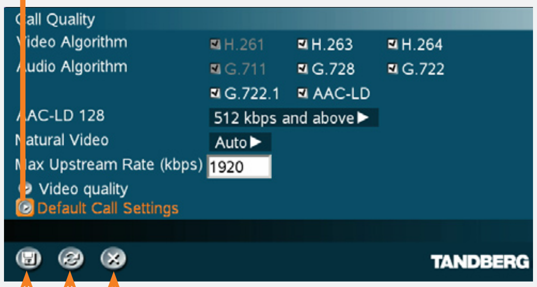
RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

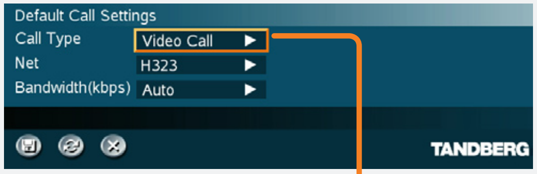
SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

Default Call Settings are connected with **Call Settings** in the **Call Menu**. If you leave Call Settings unchanged when making a call, the system will use the **Default Call Settings** in the call.

In addition to the **Call Type**, **Net**, and **Bandwidth**, you also find settings for **H.320 Auto bandwidth** and **H.323 Auto** bandwidth in **Default Call Settings**.

Default Video Call Settings





CALL TYPE

Call Type can be set to:

- Video Call
- Telephone Call

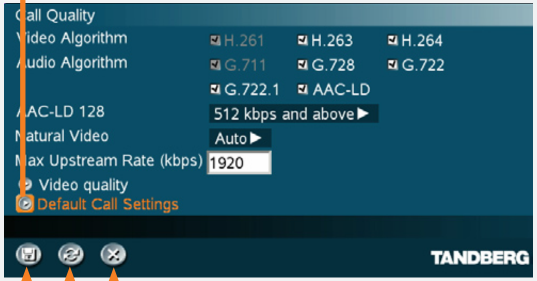
For MultiSite calls, **Call Type** enables you to specify both telephone calls and video calls in the same conference.

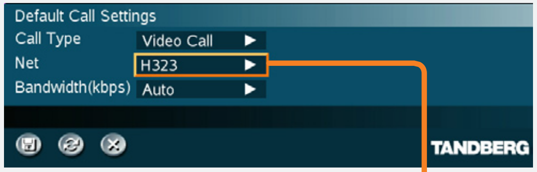
CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

Default Net Settings





CANCEL

Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press OK to restore the default settings.

SAVE

Select this icon and press OK to leave the menu putting changes into effect.

NETWORK

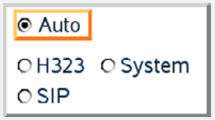
The Network alternatives are:

- Auto
- H.323
- SIP

If Auto is selected, the system will select the right network depending on the entered number:

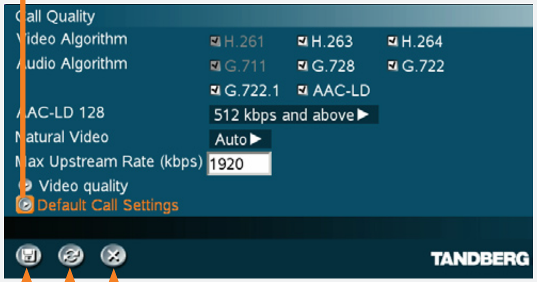
- If an IP-address (e.g. 10.12.34.56) is entered, H.323 is selected.
- If the first digits in the number match those set in H.323 Prefix, H.323 is selected.

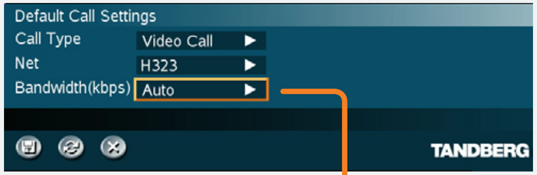
If a gatekeeper is present, it is possible to place IP-calls using “telephone style” numbers, e.g. an E.164 alias, according to the numbering plan implemented in the gatekeeper. The gatekeeper will then translate the dialled number into an IP-address, see H.323 Settings for more information about gatekeepers.

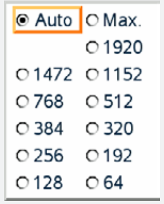


Tip! Wonder what System is doing here? System has been added by a user in the Network Profiles setup.

Default Bandwidth Settings







BANDWIDTH

Determines the quality of the video picture. When set to **Auto** the system will establish a connection using a proper bandwidth for the call, typically 384 kbps for IP calls.

When set to **Max** the system will set up the call with maximum bandwidth depending on the selected network.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

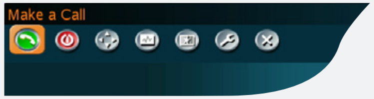
RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

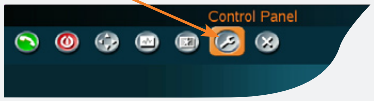
Audio Settings – an Overview

GETTING TO THIS MENU

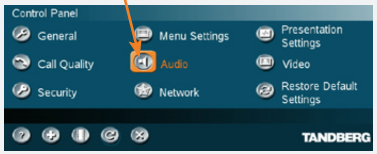
1. Press OK to produce the below menu.



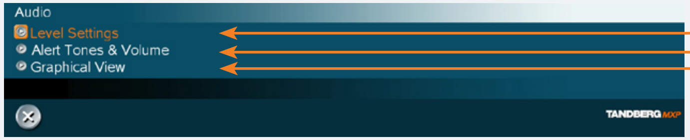
2. Use the Arrow keys to move to the Control Panel and press OK.



3. Use the Arrow keys to move to Audio Settings, if applicable. Press OK.



LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.



LEVEL SETTINGS

Lets you set the maximum levels, which later can be adjusted using the volume control.

ALERT TONES AND VOLUME

Lets you choose among the alert tones available and set the volume.

GRAPHICAL VIEW

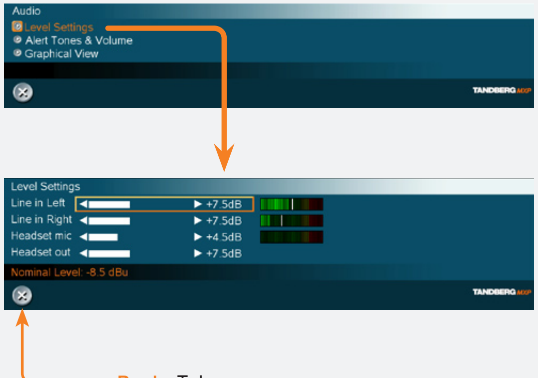
Provides an easy overview of how inputs and outputs are connected together.

Level Settings

Level Settings lets you set each max level independently. The volume control (on the remote control) acts as an attenuator with which you then may adjust the volume without the risk of causing damage to the transducers.

Note! When you use the volume control, it may look like you are able set the volume higher than the level specified here (gain, and not just attenuation). However, a limiter is used to ensure that low levels are amplified, while high and potentially damaging levels will be limited so that the maximum level as specified here will not be exceeded. A compression will thus occur at higher levels.

A volume setting potentially employing the limiter will be indicated by the volume bar changing colour to yellow and red.



Back. Takes you one level back up.

Tip! Since the unit has built-in microphones and loudspeakers, level settings apply to Line level inputs and the headset loudspeakers / microphone only.

	Headset input	Headset Output
Signal type	Unbalanced	Unbalanced
Connector (codec)	3.5mm jack, sleeve-gnd, tip-microphone	3.5mm stereo jack, sleeve-gnd, tip-left, ring-right
Impedance	2200 ohms	Low

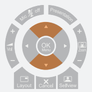
Input is System Input (from Headset), Output is System Output (to Headset)

Headset Output Levels (from System)				Headset Input Levels (to System)			
Signal levels	Abs. max output level		Nominal level	Signal Levels	Clipping Level		Nominal Level
Output menu level setting	Vpp	dBu	dBu	Input menu level setting	mVpp	dBu	dBu
0,0 dB	0,2 Vpp	–20,4 dBu	–38,4 dBu	0,0 dB	80 mVpp	–28,8 dBu	–46,8 dBu
1,5 dB	0,2 Vpp	–18,9 dBu	–36,9 dBu	1,5 dB	67 mVpp	–30,3 dBu	–48,3 dBu
3,0 dB	0,3 Vpp	–17,4 dBu	–35,4 dBu	3,0 dB	57 mVpp	–31,8 dBu	–49,8 dBu
4,5 dB	0,4 Vpp	–15,9 dBu	–33,9 dBu	4,5 dB	48 mVpp	–33,3 dBu	–51,3 dBu
6,0 dB	0,4 Vpp	–14,4 dBu	–32,4 dBu	6,0 dB	40 mVpp	–34,8 dBu	–52,8 dBu
7,5 dB	0,5 Vpp	–12,9 dBu	–30,9 dBu	7,5 dB	34 mVpp	–36,3 dBu	–54,3 dBu
9,0 dB	0,6 Vpp	–11,4 dBu	–29,4 dBu	9,0 dB	28 mVpp	–37,8 dBu	–55,8 dBu
10,5 dB	0,7 Vpp	–9,9 dBu	–27,9 dBu	10,5 dB	24 mVpp	–39,3 dBu	–57,3 dBu
12,0 dB	0,8 Vpp	–8,4 dBu	–26,4 dBu	12,0 dB	20 mVpp	–40,8 dBu	–58,8 dBu
13,5 dB	1,0 Vpp	–6,9 dBu	–24,9 dBu	13,5 dB	17 mVpp	–42,3 dBu	–60,3 dBu
15,0 dB	1,2 Vpp	–5,4 dBu	–23,4 dBu	15,0 dB	14 mVpp	–43,8 dBu	–61,8 dBu
16,5 dB	1,4 Vpp	–3,9 dBu	–21,9 dBu	16,5 dB	12 mVpp	–45,3 dBu	–63,3 dBu
18,0 dB	1,7 Vpp	–2,4 dBu	–20,4 dBu	18,0 dB	10 mVpp	–46,8 dBu	–64,8 dBu
19,5 dB	2,0 Vpp	–0,9 dBu	–18,9 dBu	19,5 dB	8 mVpp	–48,3 dBu	–66,3 dBu
21,0 dB	2,4 Vpp	0,6 dBu	–17,4 dBu	21,0 dB	7 mVpp	–49,8 dBu	–67,8 dBu
22,5 dB	2,8 Vpp	2,1 dBu	–15,9 dBu	22,5 dB	6 mVpp	–51,3 dBu	–69,3 dBu

Figures shown INVERTED denote default values.

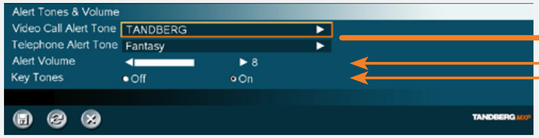
Alert Tones & Volumes

To make it easy to distinguish between incoming video calls and ordinary telephone calls, we recommend the use of different ringing tones for video and telephone calls.



Moving up and down in menu.

Use the vertical **Arrow** keys to move up and down in the Alert tone list. Press **OK** to listen to the alert tone selected. To stop playing the alert tone, use the vertical **Arrow** keys to move away from the menu. Upon leaving the entire menu, you will be prompted to confirm any changes you may have made.



ALERT VOLUME

Set the volume of the **Alert** signals.

KEY TONES

To let the unit produce a sound every time a remote control key is pressed, set Key Tones to **On**.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

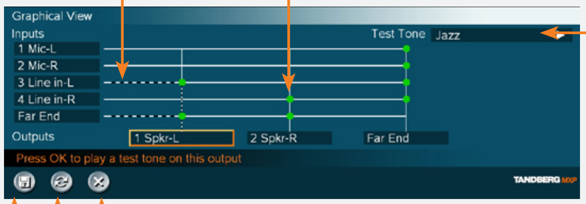
Graphical View of Settings

Ever wondered how things are connected in your system? The **Graphical View** is a matrix showing what is connected to what, and by playing test tones you will be able to verify that the connections actually are as you would like them to be.

Moving up and down in menu.

The “marching ants”

The green dots indicates connection and when you play the test tone (or rather the test signal) the “marching ants” will show you the signal flow. To play a test tone navigate to any of the Inputs or Outputs and click **OK**. The test signal will then appear at the outputs indicated.



TEST TONE

To verify that things actually are connected and work the way they claim to be connected and work, you may use any of the alert signals available, as test signal.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

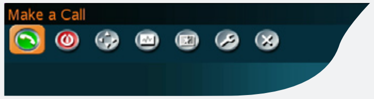
SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

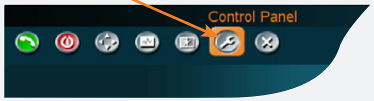
Video Settings – an Overview

GETTING TO THIS MENU

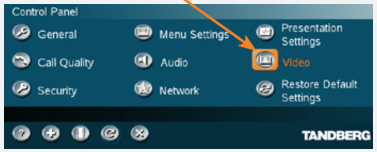
1. Press OK to produce the below menu.



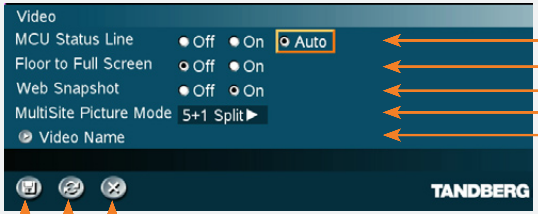
2. Use the Arrow keys to move to the Control Panel and press OK.



3. Use the Arrow keys to move to Video Settings, if applicable. Press OK.



LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.



CANCEL
Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press OK to restore the default settings.

SAVE
Select this icon and press OK to leave the menu putting changes into effect.

MCU STATUS LINE
MultiSite / MCU / DuoVideo indicators can be displayed whenever applicable, not displayed at all, or displayed for a short time. These indicators provide information about the conference.

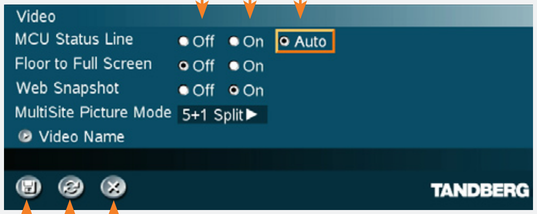
FLOOR TO FULL SCREEN
When enabled, anyone requesting floor will be seen by all participants as full screen.

WEB SNAPSHOTS
The system is able to generate JPEG snap-shots and provide them when requested (as 'http get'or via ftp).

MULTISITE PICTURE MODE
Determines the default layout of a MultiSite call.

VIDEO NAME
As a default, the video inputs are given the names Main Cam, PC, Doc Cam, VCR, AUX, or VNC, depending on the video sources available on your system. You may change these names. If video names are changed, you will see the changed name appear in the Main Video and Presentation Video menus.

MCU Status Line



MCU STATUS LINE

Off. The MultiSite / MCU / DuoVideo indicators will not be displayed.

On. The MultiSite / MCU / DuoVideo indicators will be displayed and provide information about the conference.

Auto. The MultiSite / MCU / DuoVideo indicators will be displayed for a few seconds and then timed out. When grabbing the remote control, the indicators will be shown again.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

Floor to Full Screen

FLOOR TO FULL SCREEN

When Floor to Full Screen is enabled, someone who requests floor will be seen by all participants as full screen. When Floor to Full Screen is Off, someone who request floor in a MultiSite conference using the 5+1 layout will be seen in the large square, rather than full screen.

Off. The participant who has the floor is displayed in the MultiSite layout that is used.

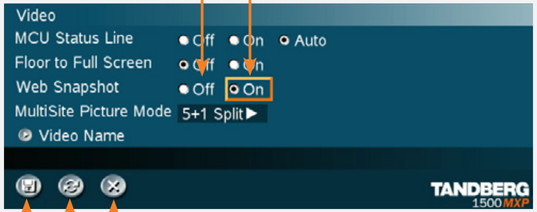
On. The participant that has the floor is displayed in full screen regardless of what MultiSite layout that is used.

CANCEL
Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press OK to restore the default settings.

SAVE
Select this icon and press OK to leave the menu putting changes into effect.

Web Snapshot



WEB SNAPSHOT

The system is able to generate JPEG snapshots and provide them when requested (as 'http get' or via ftp). Note that web snapshots are not generated if the conference is encrypted.

Off. Snapshots generation is disabled.
On. Snapshots generation is enabled.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

USING THE FILE SYSTEM

It is possible to access a file system within the TANDBERG system by means of ftp. Use either DOS window or Web browser:

- **DOS window:** `ftp <IP-address of system>`
- **Web browser:** `ftp:// <IP-address of system>`

DESCRIPTION OF THE DIFFERENT FILES:

- `all.prm` all settings in the system (including directory)
- `dir.prm` directory entries (up to 200 entries)
- `event.log` logs fault situations etc.
- `sw.pkg` the system software
- `globdir.prm` file containing up to 400 entries. These entries can not be edited from the system, but can be edited as a text-file.

Files accessible only by `ftp get /tmp/snapshots/xxx.jpg` **or** `http://<IP-address of system>/tmp/snapshots/xxx.jpg`**:**

- `site0.jpg` Snapshot of current stream if MultiSite.
- `main.jpg` Snapshot of selfview.
- `site1.jpg` Snapshot of decoded stream if point-to-point.
- `duo.jpg` Snapshot of the encoded stream if transmitting DuoVideo, the decoded stream if receiving DuoVideo.

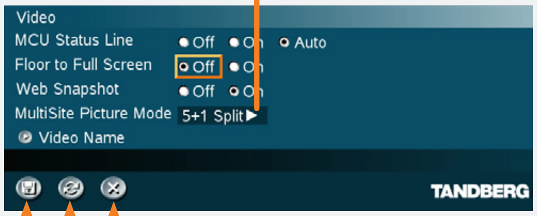
Tip! Before issuing the `get` command you should execute the ftp command `bin` to enable binary transmission. If not the jpg's will be corrupted.

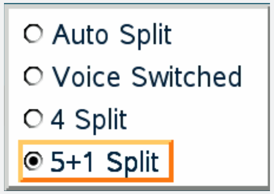
APPLYING YOUR OWN LOGO

1. Go to the folder where your logo is located.
2. Type `ftp <IP-address of your local system>`
3. Go to the user folder, type `cd user`
4. Upload the logo, type `put <logo.jpg>`.
5. The new logo will be displayed the next time you restart your system. Recommended maximum size is: 704×576, file format: jpg. If the file is too large, no logo will be displayed.

Tip! This can also be done using the web browser.

MultiSite Picture Mode





Moving up and down in menu.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

MULTISITE PICTURE MODE

MultiSite Picture Mode determines the default layout of a MultiSite call. Available layouts are:

- Auto Split
- 4 Split
- 5+1 Split
- Voice Switched.

You can change the layout during a call using the layout option in **MultiSite Services**.

Auto Split displays all participants on the screen simultaneously. A MultiSite call with 3 or 4 video participants is displayed with 4 Split. A MultiSite call with 5 or 6 video participants is displayed with 5+1 Split.

Voice Switched mode displays the participant that is speaking in full screen.

4 Split displays the four latest speaking Participants.

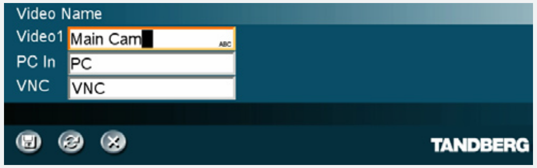
5+1 Split displays the speaking participant in a big picture and the other participants in small pictures.

4 Split example.

5+1 Split works even with less than 5+1 participants (the speaking person is shown as a larger picture).

Voice switched mode provides a full screen display of the person currently speaking.

Video Name



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

VIDEO NAME

As a default, the video inputs are given the names Main Cam, PC, Doc Cam, VCR, AUX or VNC, dependent on what video sources are available on your system. You may change these to your liking. Note, however, that the video names cannot exceed eight characters.

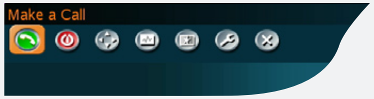
The names correspond to the video names in the **Presentation Menu** (**Main Menu** > **Presentation** > **Main Video** or **Presentation Video** pop up menu).

If video names are changed, you will see the changed name appear in the **Main Video** and **Presentation Video** menus.

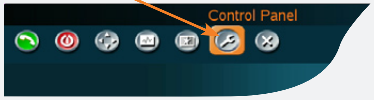
Security Settings – an Overview

GETTING TO THIS MENU

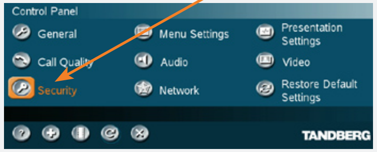
1. Press **OK** to produce the below menu.



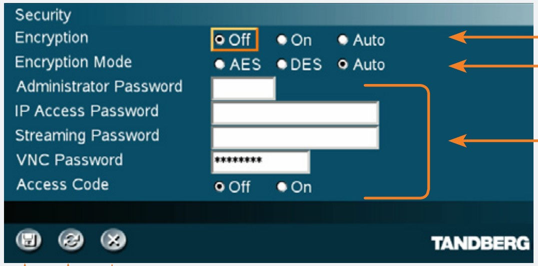
2. Use the **Arrow** keys to move to the **Control Panel** and press **OK**.



3. Use the **Arrow** keys to move to **Security**, if applicable. Press **OK**.



LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.



ENCRYPTION
Provided that all parties participating have equipment supporting encryption, video meetings may be set up using encrypted communication.

ENCRYPTION MODE
Lets you choose between AES, DES, or have the system itself find the mode that all parties support.

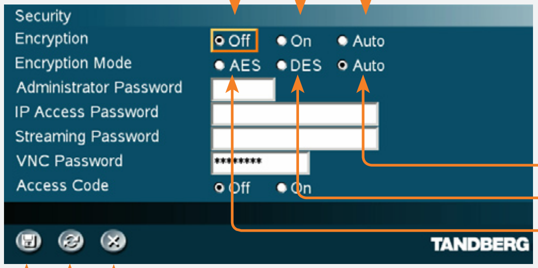
PASSWORDS
Administrator Password, **IP Access Password**, **Streaming Password**, **VNC Password**,and **Access Code** are duplicated from their respective menus. Using the **Security** menu gives you a quick way to change all passwords of the system.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

Encryption



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

ENCRYPTION (Country specific)

Off. The system will not send or receive encrypted data.

On. The system will only send and receive encrypted data. The call will not be established if not all participants support encryption.

Auto. The system will try to set up calls using encryption.

- **Point to point calls:** If the far end system supports encryption (AES or DES), the call will be encrypted. If not, the call will proceed without encryption.
- **MultiSite calls*:** In order to have encrypted MultiSite calls, all sites must support encryption. The padlock symbol will indicate encryption mode (AES or DES). If there is a mix of AES and DES encryption, only the symbol for DES encryption (single padlock) will be displayed. The 'closed padlock' will only be displayed on each site when all links in the MultiSite conference are encrypted.

See Icons for a presentation of the icons.

Technical encryption information like encryption algorithm and encryption check code used can be found in the Call Status menu.

* Only available on systems with MultiSite option supported and installed.

ENCRYPTION MODE

Auto. The system will try to use the most secure encryption – AES – depending on the capabilities of the other sites. For sites that fail to support AES encryption, DES encryption will be tried.

DES. The system will try to set up the call using DES with 56 bits encryption. If none of the other sites do support DES, no other type of encryption will be initiated.

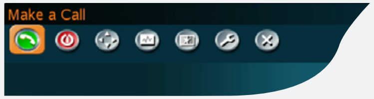
AES. The system will try to use AES with 128 bits encryption when setting up calls. If AES is not supported by the other site(s), no other type of encryption will be initiated.

Both AES and DES encrypted sites can be connected at the same time.

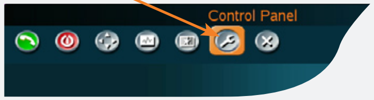
Network Settings – an Overview

GETTING TO THIS MENU

1. Press **OK** to produce the below menu.



2. Use the **Arrow** keys to move to the **Control Panel** and press **OK**.



3. Use the **Arrow** keys to move to **Network Settings**, if applicable. Press **OK**.

LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

LAN SETTINGS

The LAN settings contain:

- IP Settings
- H.323 Settings
- SIP Settings
- Wireless LAN Settings
- SNMP Settings
- IP Services
- Quality of Service
- 802.1X Settings.

NETWORK PROFILES

This menu consists of 7 network profiles; a prefix can be added for each profile. If you add a prefix to a profile, this prefix will automatically be inserted in front of the number being dialled.

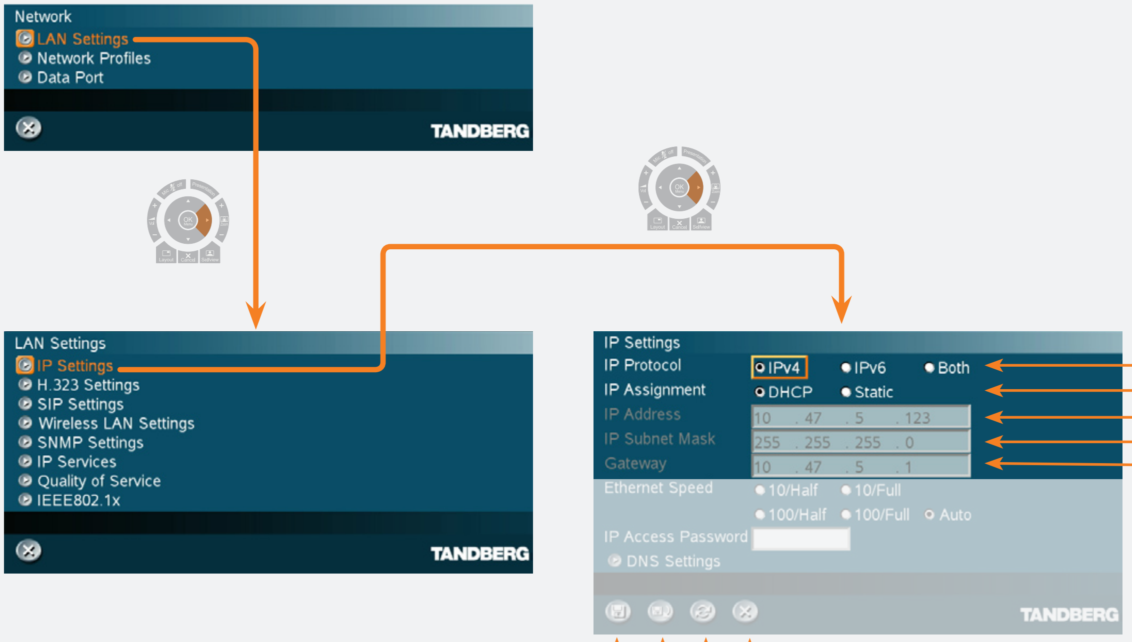
DATA PORT

The system provides up to two standard RS232 serial ports to allow a computer to be connected for data transfer and control purposes.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

IP Settings (I)



Lower part of the menu is explained overleaf.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu saving the changes. Note that restart is needed to put changes into effect here!

SAVE & RESTART
Select this icon and press **OK** to leave the menu restarting the system to put IP Setting changes into effect.

IP SETTINGS

Remember to restart the system after making changes to IP Settings. Click on the **Save & Restart** button to do this. Changes in IP Settings menu will have no effect until the system is restarted.

IP PROTOCOL

IPv4. IP version 4 supported.

IPv6. IP version 6 supported. IP Address, IP Subnet Mask, and Gateway will be disabled.

Both. Both IP version 4 and IP version 6 supported.

IP-ASSIGNMENT

DHCP (Dynamic Host Configuration Protocol) can be selected when a DHCP server is present. Note that for IPv6, DHCP is used for NTP / DNS Server Addresses.

DHCP. IP-address, IP-subnet mask and Gateway are not used because the DHCP server assigns these parameters.

Static. The system's IP-address, IP-subnet mask and Gateway must be specified in the IP-address field.

IP-ADDRESS

IP-address defines the network address of the codec. This address is only used in static mode. In DHCP-mode, the assigned IP-address can be found on the Welcome Menu.

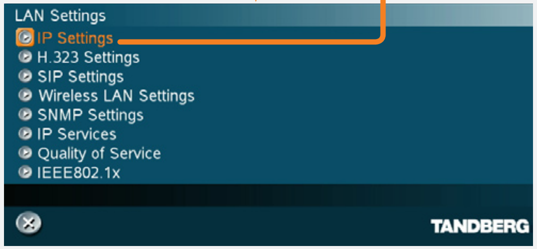
IP-SUBNET MASK

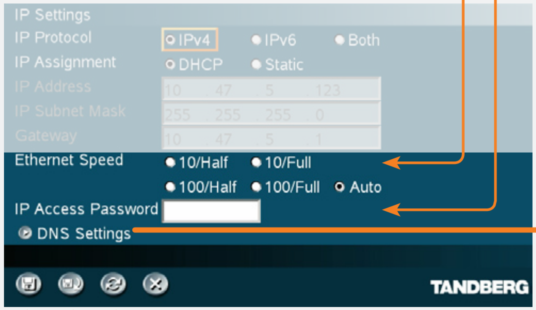
IP-subnet mask defines the type of network. This address is only used in static mode. Your LAN-administrator will provide the correct value for this field.

GATEWAY

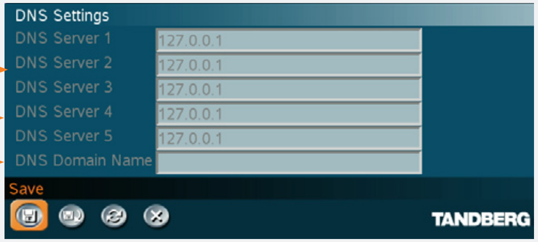
When using DHCP, the default gateway will be set automatically. If the LAN utilizes static IP addresses, IP address, subnet mask, and default gateway must be specified by the LAN administrator.

IP Settings (II)





Upper part of menu is explained on the previous page.



ETHERNET SPEED

Auto. The codec will auto-detect the speed/duplex on the LAN.

10/Half. The codec will connect to the LAN using 10Mbps speed / Half Duplex.

10/Full. 10 Mbps speed / Full Duplex.

100/Half. 100 Mbps speed / Half Duplex.

100/Full. 100 Mbps speed / Full Duplex.

IP ACCESS PASSWORD

By setting an IP Access Password on the system, all access to the system using IP (Telnet, FTP and WEB) requires a password. The default IP Access Password is “TANDBERG”.

IP SETTINGS

Remember to restart the system after making changes to IP Settings. Click on the icon to do this. Changes in IP Settings menu will have no effect until the system is restarted.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu saving the changes. Note that restart is needed to put changes into effect here!

SAVE & RESTART

Select this icon and press **OK** to leave the menu restarting the system to put IP Setting changes into effect.

DNS DOMAIN NAME

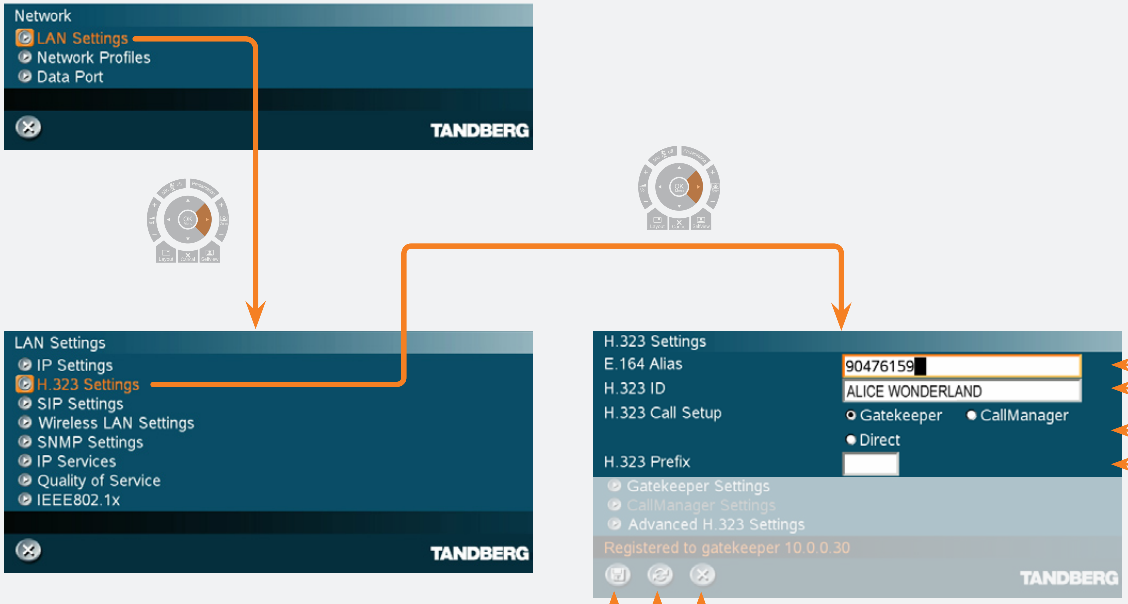
DNS Domain Name is the default domain name suffix which is added to unqualified names.

Example: DNS Domain Name is “example.com”, and the name to lookup is “videosystem” will result in a “videosystem.example.com” DNS lookup.

DNS SETTINGS

DNS Server 1–5. DNS Server defines the network addresses for DNS servers. Up to 5 addresses may be specified. If the network addresses are unknown, please contact your administrator or Internet Service Provider.

H.323 Settings (I)



Lower part of the menu is explained on the following pages.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

E.164 ALIAS

This is the E.164 address of the system. The E.164 address is equivalent to a telephone number, sometimes combined with access codes. Valid characters are 0–9, * and #. When using a gatekeeper, the system will send a message to the gatekeeper containing both the E.164 address and the H.323 ID of the system.

H.323 ID

The H.323 ID of the system may be specified here. The System name is used if no H.323 ID is entered.

H.323 CALL SETUP

Direct. An IP-address must be dialled in order to make a H.323 call. The system will not use a gatekeeper or CallManager

Gatekeeper. The system will use a gatekeeper to make an H.323 call.

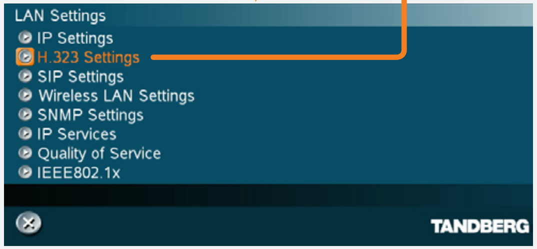
CallManager. The system will use a CallManager to make a H.323 call.

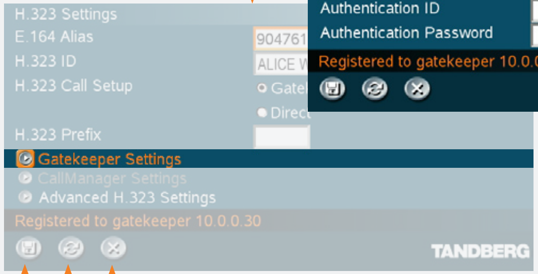
H.323 PREFIX

When dialing a number prefixed with digits specified by H.323 Prefix, and with Net: Auto, an H.323 call will be placed.

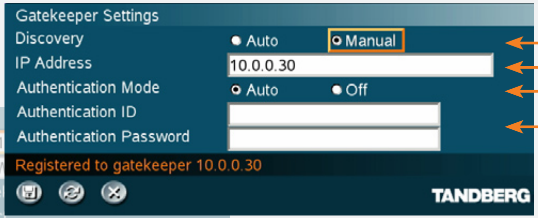
Example: H.323 Prefix is “555”. Dialling “55582” with “Net:Auto” will select LAN.

H.323 Settings (II) – Gatekeeper Settings





The rest of the lower part of the menu is explained on the following pages.



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

GATEKEEPER DISCOVERY

Auto. The system will automatically try to register to any available gatekeeper. If a gatekeeper responds to the request sent from the codec within 30 seconds this specific gatekeeper will be used. This requires auto discovery on the gatekeeper as well. If no gatekeeper responds, the system will not use a gatekeeper for making H.323 calls and hence an IP-address must be specified manually.

Manual. The system will use a specific gatekeeper identified by Gatekeeper IP-address.

GATEKEEPER IP ADDRESS

This is the gatekeeper IP-address that is used if you specify H.323 Call Setup: Gatekeeper and Gatekeeper Discovery: Manual.

AUTHENTICATION MODE

Auto. If Authentication Mode is set to Auto and the gatekeeper indicates that it requires authentication, the endpoint will automatically try to authenticate itself to the Gatekeeper.

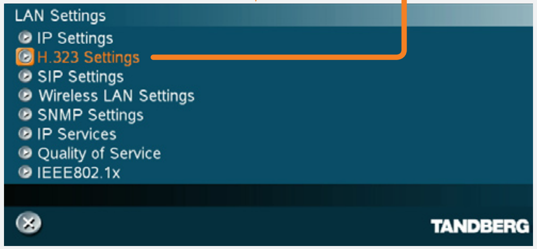
Off. If Authentication Mode is set to Off the system will not try to authenticate itself to a Gatekeeper, but will still try a normal registration.

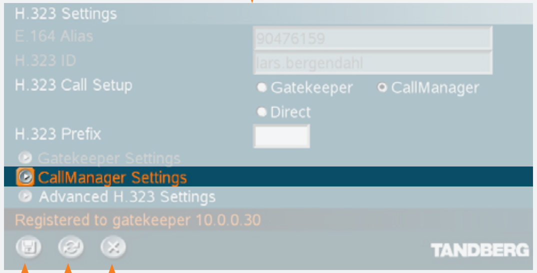
AUTHENTICATION ID / AUTHENTICATION PASSWORD

The system sends the Authentication ID and Password to a Gatekeeper for authentication. The authentication is a one way authentication from the endpoint system to a Gatekeeper, i.e. the endpoint is authenticated to the Gatekeeper. If the Gatekeeper indicates that no authentication is required, the endpoint will still try to register.

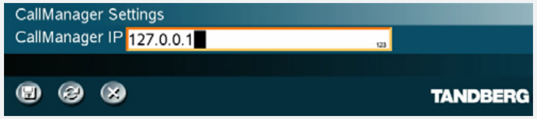
TIP! if your system is part of a TANDBERG Expressway™ firewall traversal solution and is placed outside the firewall, you should register the IP address of your Border Controller as the Gatekeeper IP address and set H.323 Call Setup to Gatekeeper.

H.323 Settings (III) – CallManager Settings





The rest of the lower part of the menu is explained on the following pages.



CALLMANAGER IP

This is the CallManager IP-address that is used if you specify **H.323 Call Setup: CallManager**.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

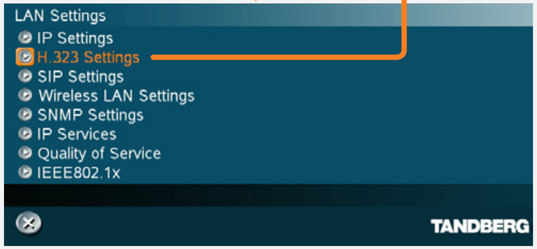
RESTORE DEFAULTS

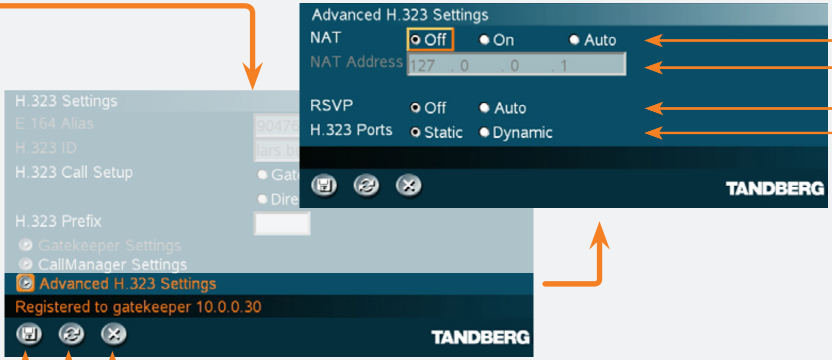
Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

H.323 Settings (IV) – Advanced NAT Settings





The upper part of the menu is explained on the preceding pages.

NAT

On. The system will signal the configured "NAT Address" in place of its own IP-address within Q.931 and H.245.

Auto. The system will try to determine if the "NAT Address" or the real IP-address should be used within signalling. This is done to make it possible to place calls to endpoints on the LAN as well as endpoints on the WAN.

NAT ADDRESS

This must be the external/global IP-address to the router with NAT support. Packets sent to the router will then be routed to the system. In the router, the following ports must be routed to the system's IP-address:

- Port 1720
- Port 5555-5560
- Port 2326-2365

Please contact your TANDBERG representative for further information.

RSVP

Auto. Resource Reservation Protocol enables the systems to request the optimum amount of bandwidth for the duration of an IP videoconference.

Off. Resource Reservation Protocol is switched off.

H.323 PORTS

Static. When selecting static H.323 ports for TCP connections the ports 5555 to 5574 will be used for Q.931 and H.245 respectively.

Dynamic. The system will allocate which ports to use when opening a TCP connection. The reason for doing this is to avoid using the same ports for subsequent calls as some firewall consider this as a sign of attack.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

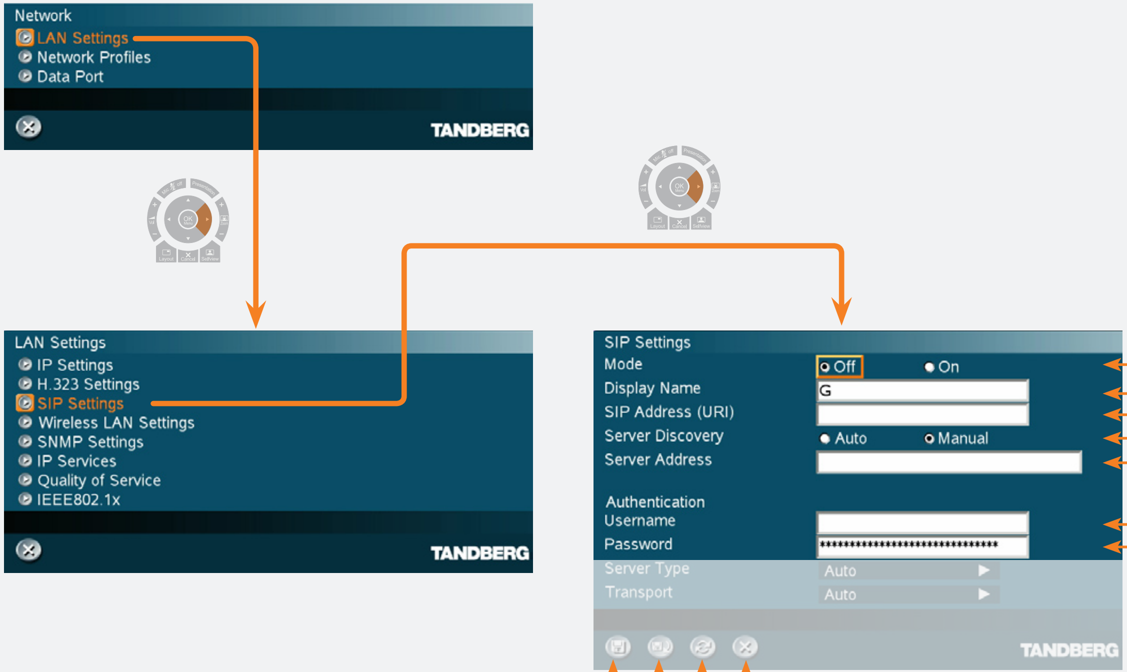
Select this icon and press **OK** to leave the menu putting changes into effect.

About Network Address Translation (NAT)

NAT, Network Address Translation, is used when a PC and a videoconferencing system are connected to a router with NAT support. NAT support in the videoconferencing system enables proper exchange of audio/video data when connected to an external videoconferencing system (when the IP traffic goes through a NAT router). When NAT is **On**, the NAT Server Address will be shown in the startup-menu: **My IP Address: 10.0.2.1**.

NOTE! The Advanced H.323 Settings only have effect when supported by your IP infrastructure.

SIP Settings (I)



Lower part of the menu is explained on the following pages.

MODE

On. Setting the SIP mode to on will enable the system for incoming and outgoing SIP calls.

Off. Setting the SIP mode to off will disable incoming and outgoing SIP calls from the system.

DISPLAY NAME

The Display name part of the SIP Address (URI) is usually a full name or system name.

Examples: "Alice Wonderland" "System 01"

SIP ADDRESS

The SIP Address is the SIP URI used to address the system. **Examples:** "alice@example.com" "1234" "1234@example.com"

SERVER DISCOVERY

Auto. When selected, the SIP Server address is obtained using Dynamic Host Configuration Protocol (DHCP).

Manual. When selected, the manually configured SIP Server address will be used.

SERVER ADDRESS

The Server Address is the manually configured address for the outbound proxy and registrar. It is possible to use a fully qualified domain name, or an IP address. The default port is 5060 for TCP and UDP, but another one can be provided. **Examples:** "sipserver.example.com" "sipserver.example.com:5060" "10.0.0.2" "10.0.0.2:5061"

AUTHENTICATION

User Name. This is the user name part of the credentials used to authenticate toward the SIP Server.

PASSWORD

This is the password part of the credentials used to authenticate toward the SIP Server.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

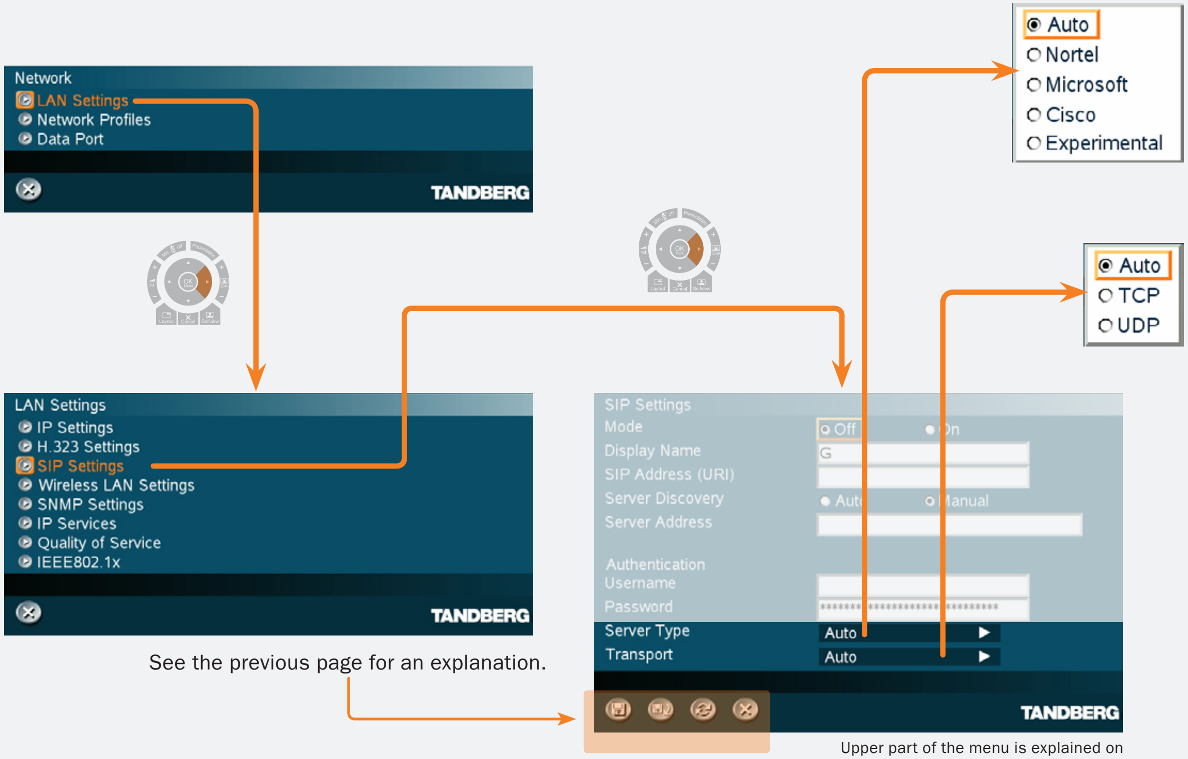
SAVE

Select this icon and press **OK** to leave the menu saving the changes. Note that restart is needed to put changes into effect here!

SAVE & RESTART

Select this icon and press **OK** to leave the menu restarting the system to put IP Setting changes into effect.

SIP Settings (II)



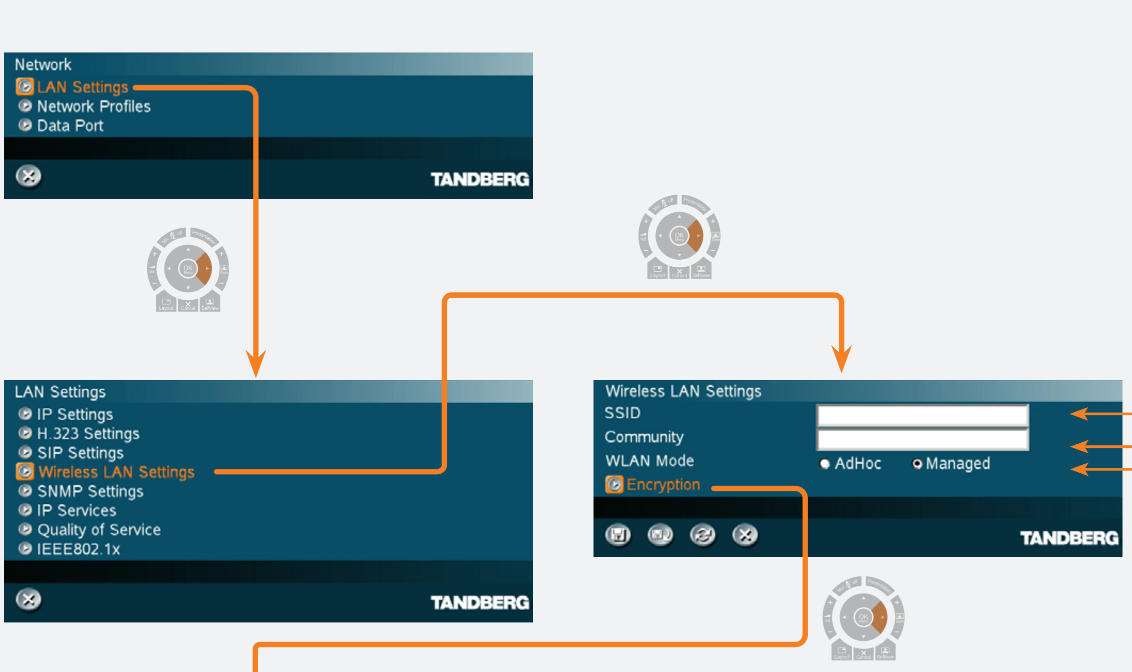
See the previous page for an explanation.

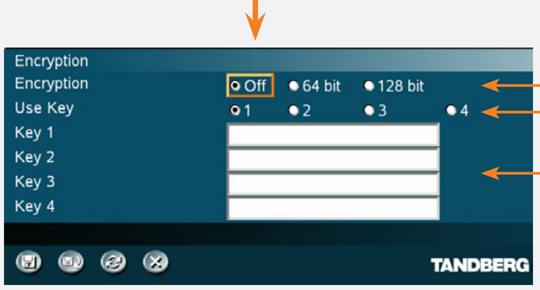
Upper part of the menu is explained on the preceding page.

Current RFC's and Drafts supported:

RFC 1889 RTP: A Transport Protocol for Real-Time Applications
RFC 2327 SDP: Session Description Protocol
RFC 2396 Uniform Resource Identifiers (URI): Generic Syntax
RFC 2617 Digest Authentication
RFC 2782 DNS RR for specifying the location of services (DNS SRV)
RFC 2976 The SIP INFO Method
RFC 3261 SIP: Session Initiation Protocol
RFC 3262 Reliability of Provisional Responses in SIP
RFC 3263 Locating SIP Servers
RFC 3264 An Offer/Answer Model with SDP
RFC 3311 UPDATE method
RFC 3361 DHCP Option for SIP Servers
RFC 3420 Internet Media Type message/sipfrag
RFC 3515 Refer method
RFC 3581 Symmetric Response Routing
RFC 3605 RTCP attribute in SDP
RFC 3840 Indicating User Agent Capabilities in SIP
RFC 3890 A Transport Independent Bandwidth Modifier for SDP
RFC 3891 The SIP "Replaces" Header
RFC3892 Referred-By Mechanism
RFC 3960 Early Media
RFC 4028 Session Timers in SIP
RFC 4145 TCP-Based Media Transport in the SDP
draft-levin-mmusic-xml-media-control-03.txt
draft-ietf-mmusic-sdp-media-content-01.txt
draft-ietf-mmusic-sdp-bfcp-03.txt
draft-ietf-xcon-bfcp-06.txt
draft-ietf-sipping-cc-transfer-06.txt
RFC 2032 RTP Payload Format for H.261 Video Streams
RFC 2190 RTP Payload Format for H.263 Video Streams
RFC 2429 RTP Payload Format for the 1998 Version of ITU-T Rec. H.263 Video (H.263+)
RFC 3047 RTP Payload Format for ITU-T Recommendation G.722.1
RFC 3984 RTP Payload Format for H.264 Video
draft-ietf-avt-rfc2032-bis-03.txt RTP Payload Format for H.261 Video Stream
RFC3016 RTP Payload Format for MPEG-4 Audio/Visual Streams

Wireless LAN Settings





ENCRYPTION

Select Encryption if you want to use WEP encryption on your Wireless LAN connection. Increased encryption level will decrease performance.

USE KEY

Select which of the keys shown below you want to use.

KEY 1-4

The 64-bit keys can consist of a leading star (*) and 5 characters.

The 128-bit key can consist of a leading star (*) and 13 characters. Start with a * and then the text. Example: **128 bit key:** *secretkeyhome.

Encryption using Hex numbers The 64-bit keys can consist of 10 hexadecimal digits. Example: “de01ad4dbe”. The 128-bit key can consist of 26 hex numbers.

SSID (Service Set Identification)

Example “WLANNETWORK”. Defines a local network id for this wireless region. It must be the same for all end points and the access point. An endpoint will find the access point if the SSID is correct, however if the encryption key is faulty it will not transmit any data.

COMMUNITY (optional)

Community can be used when connecting to an access point where the SSID is the same. **Example** “Unit2”.

WLAN MODE

AdHoc. Used when not communicating with an access point.

Managed. Used when communication is made through an access point.

Make sure the corresponding settings are programmed into the access point. Press **Restart** from **Control Panel** in order to activate the settings.

REQUIRED CARDS

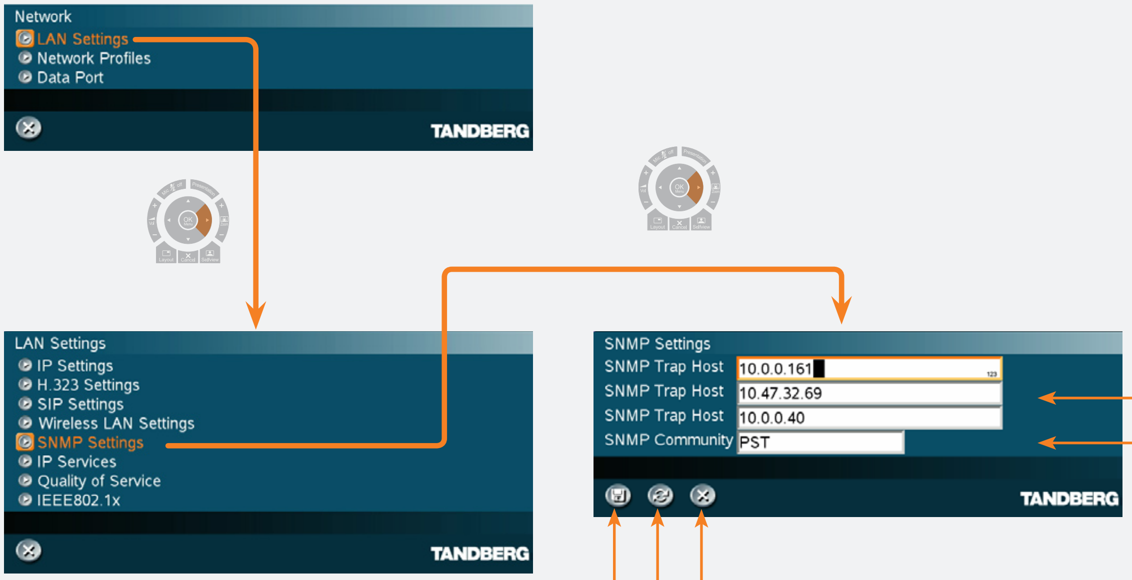
- Compaq WL110 11 Mbps Wireless LAN
- Lucent Orinoco 11 Mbit/s SILVER
- Lucent Orinoco 11 Mbit/s GOLD
- Cisco Aironet 350 series (AIR-PCM 350 series)
- Enterasys Networks RoamAbout 802.11 DS High Rate
- Melco Buffalo WLI-PCM-L11G

RECOMMENDED ACCESS POINT

- Compaq WL410 base station

NOTE! The PC card/PCMCIA-card used must comply with the relevant regulations for such cards in the country where it is used. The unit must be supplied by power supply (AC-DC adaptor) powerbox SPN-270-12, which complies with the requirements for limited power source according to IEC/EN 60950.

SNMP Settings



CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

SNMP TRAP HOST

Identifies the IP-address of the SNMP manager. SNMP (Simple Network Management Protocol, SNMP Ver 1) is used to monitor and configure different entities in a network. The system's SNMP Agent responds to requests from SNMP Managers (a PC program etc.). SNMP traps are generated by the agent to inform the manager about important events.

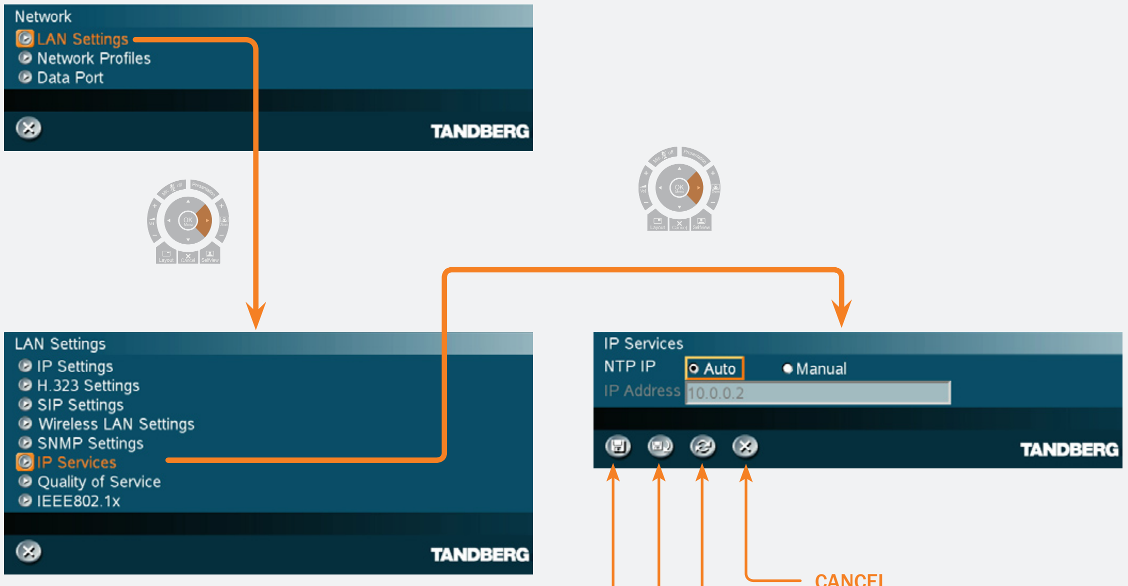
Traps can be sent to multiple SNMP Trap Hosts. Enter the IP address of up to three SNMP managers. All traps will then be sent to the hosts listed.

SNMP COMMUNITY

Used to authenticate SNMP requests. SNMP requests must have a 'password' in order to receive a response from the SNMP agent in the codec.

Note! The SNMP Community name is case sensitive. The default password is `public`

IP Services



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu saving the changes. Note that restart is needed to put changes into effect here!

SAVE & RESTART
Select this icon and press **OK** to leave the menu restarting the system to put IP Setting changes into effect.

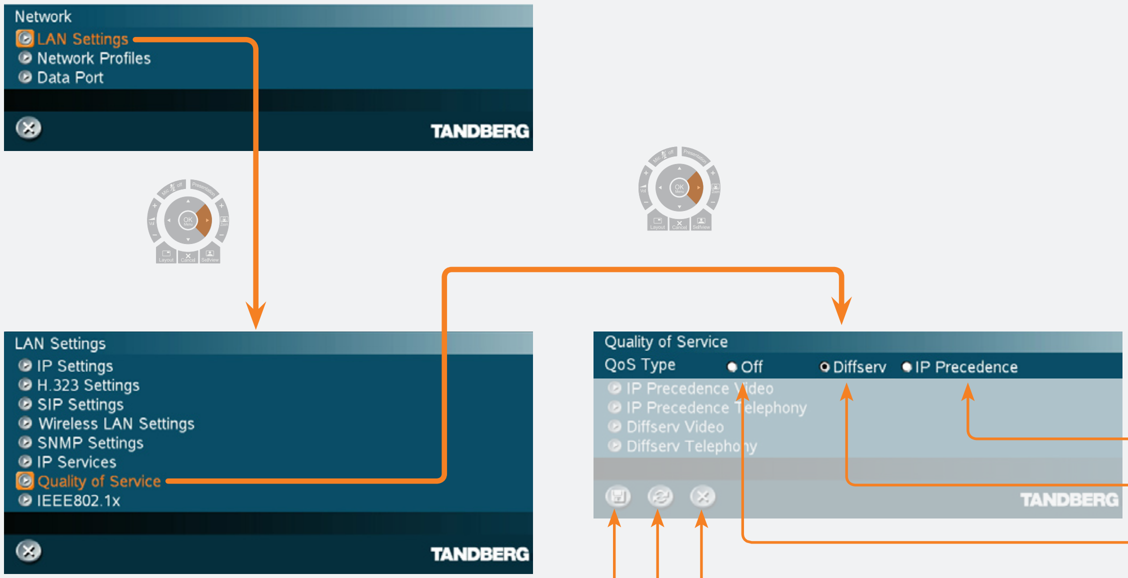
NTP IP

This is the NTP time server address from which the system can get updated time information. This is a requirement for proper operation if H.235 authentication is implemented.

The Network Time Protocol (NTP) is used to synchronize the time of the system to a reference time server. The NTP IP setting holds the IP address to a time source where the system can get the exact time. The time server will subsequently be queried every 24th hour for time updates. The system will use the time to timestamp messages transmitted to Gatekeepers or Border Controllers requiring H.235 authentication.

It is also used for timestamping Placed Calls, Missed Calls and Received Calls.

Quality of Service (I) – QoS Type



QOS TYPE

IP Precedence. IP Precedence QoS method is used. Please see the following pages for details.

Diffserv. Diffserv QoS method is used. Please see the following pages for details.

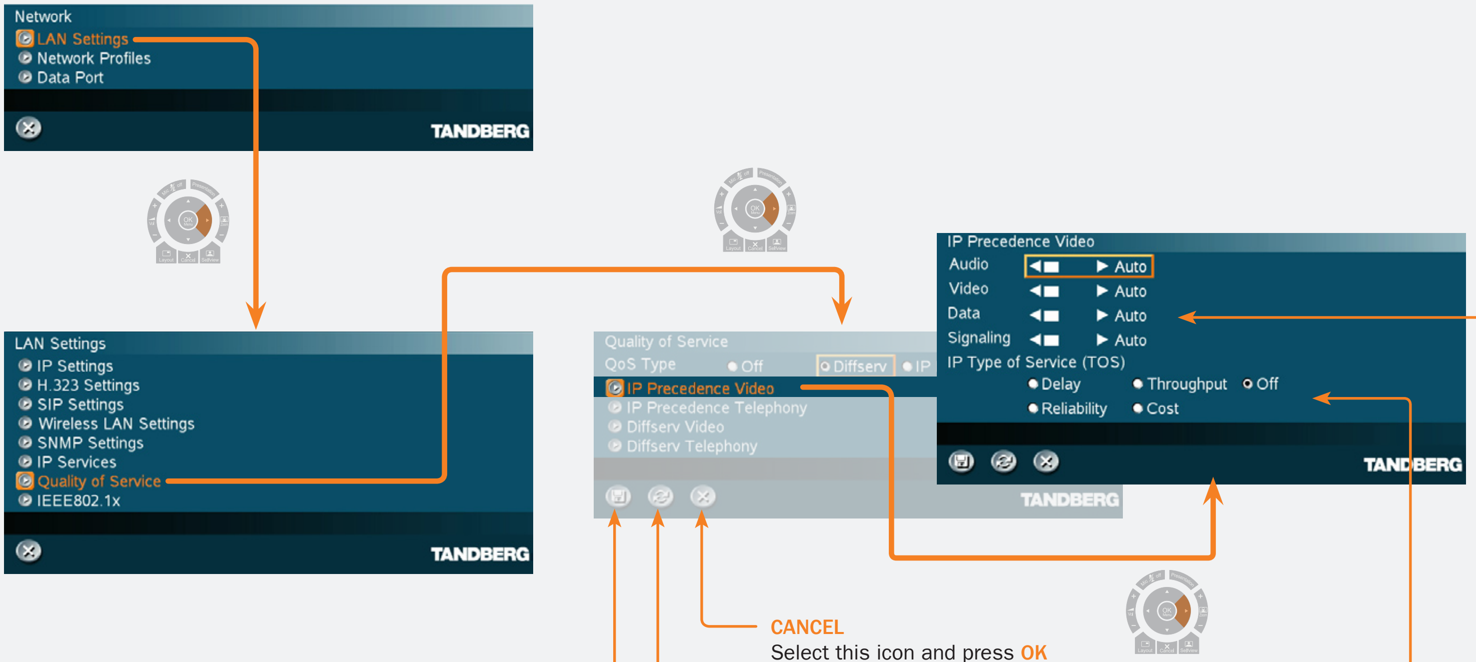
Off. No QoS is used.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

Quality of Service (II) – IP Presedence Video



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

IP PRECEDENCE VIDEO

Used to define which priority audio, video, data and signalling should have in the network. The higher the number, the higher the priority. The priority ranges from 0 (off) to 7 for each type of packets.

Auto will provide the following priority:

Audio	4
Video	4
Data	3
Signalling	6

IP TYPE OF SERVICE (TOS)

Helps a router select a routing path when multiple paths are available.

Delay. Tells the router to minimize the delay.

Throughput. Tells the router to maximize the throughput.

Reliability. Tells the router to maximize the reliability.

Cost. Tells the router to minimize the cost.

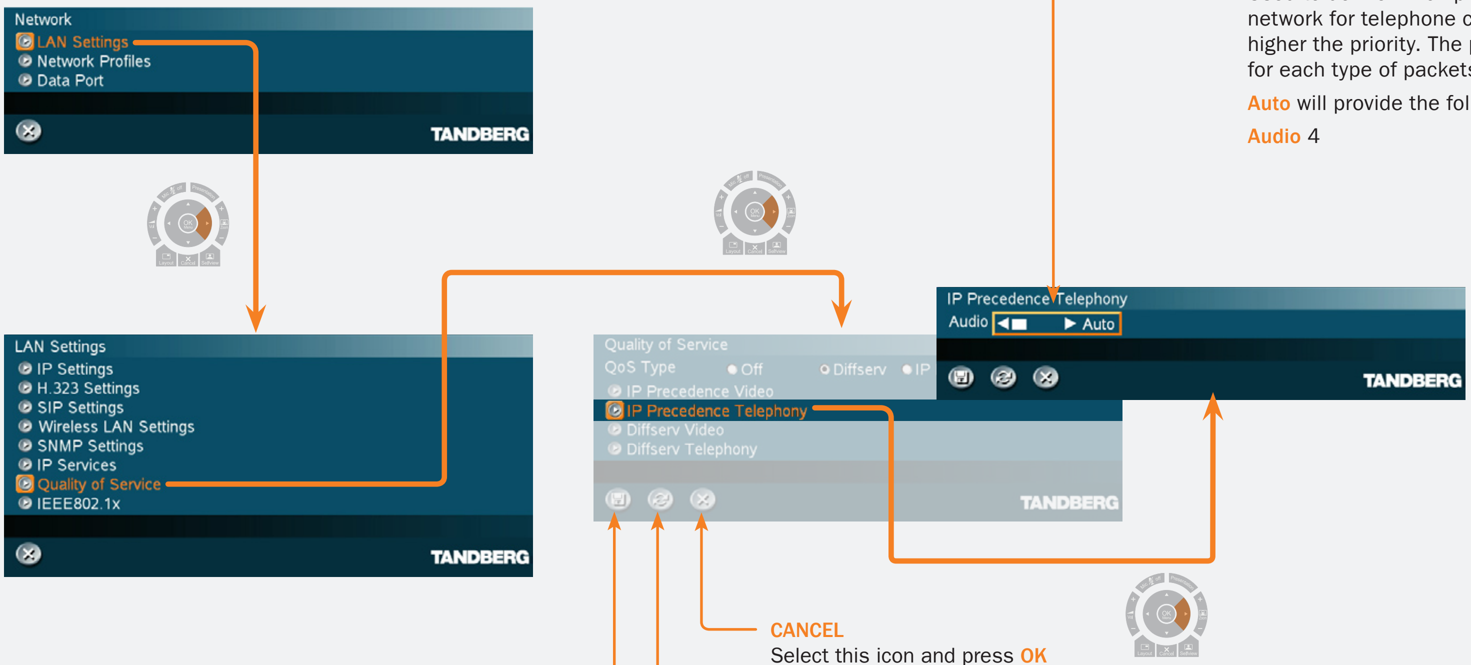
Quality of Service (III) – IP Presedence Telephony

IP PRECEDENCE TELEPHONY

Used to define which priority audio should have in the network for telephone calls. The higher the number, the higher the priority. The priority ranges from 0 (off) to 7 for each type of packets.

Auto will provide the following priority:

Audio 4



CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

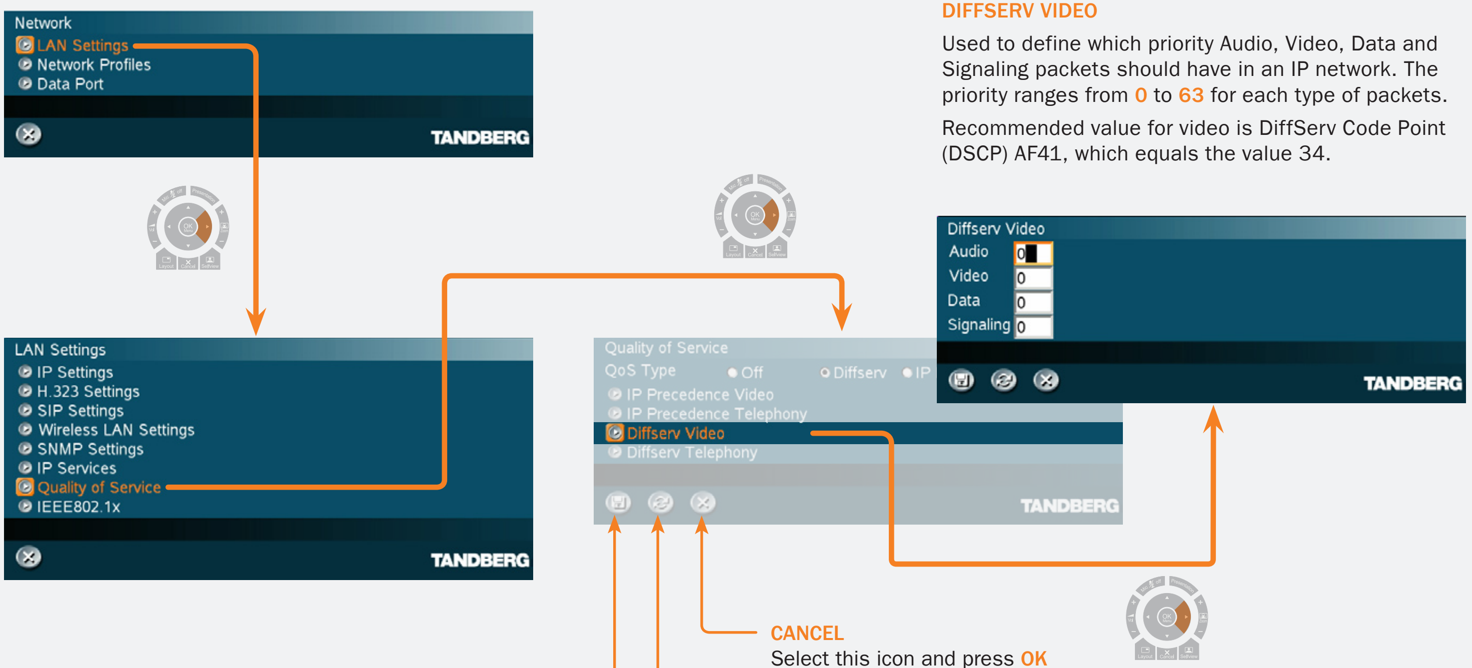
RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

Quality of Service (IV) – Diffserv Video



DIFFSERV VIDEO

Used to define which priority Audio, Video, Data and Signaling packets should have in an IP network. The priority ranges from **0** to **63** for each type of packets.

Recommended value for video is DiffServ Code Point (DSCP) AF41, which equals the value 34.

CANCEL

Select this icon and press **OK** to leave the menu undoing any changes.

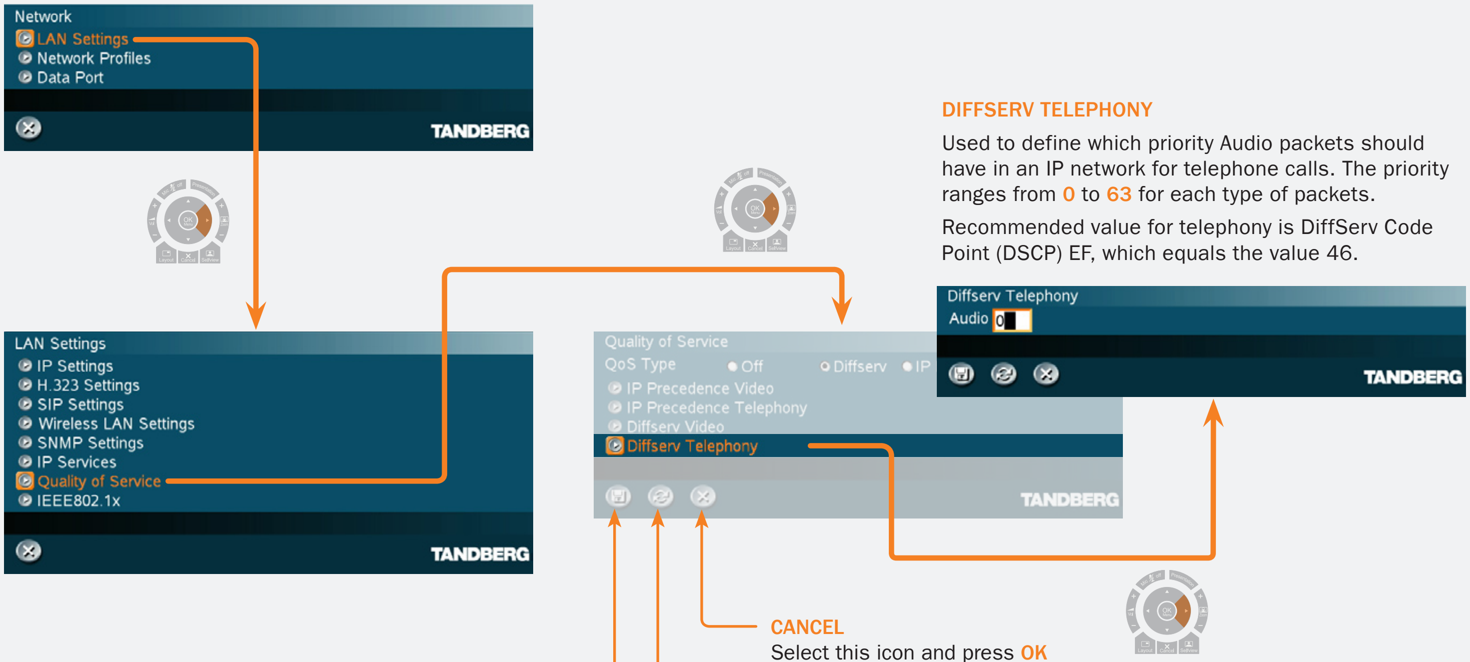
RESTORE DEFAULTS

Select this icon and press **OK** to restore the default settings.

SAVE

Select this icon and press **OK** to leave the menu putting changes into effect.

Quality of Service (V) – Diffserv Telephony



DIFFSERV TELEPHONY

Used to define which priority Audio packets should have in an IP network for telephone calls. The priority ranges from 0 to 63 for each type of packets.

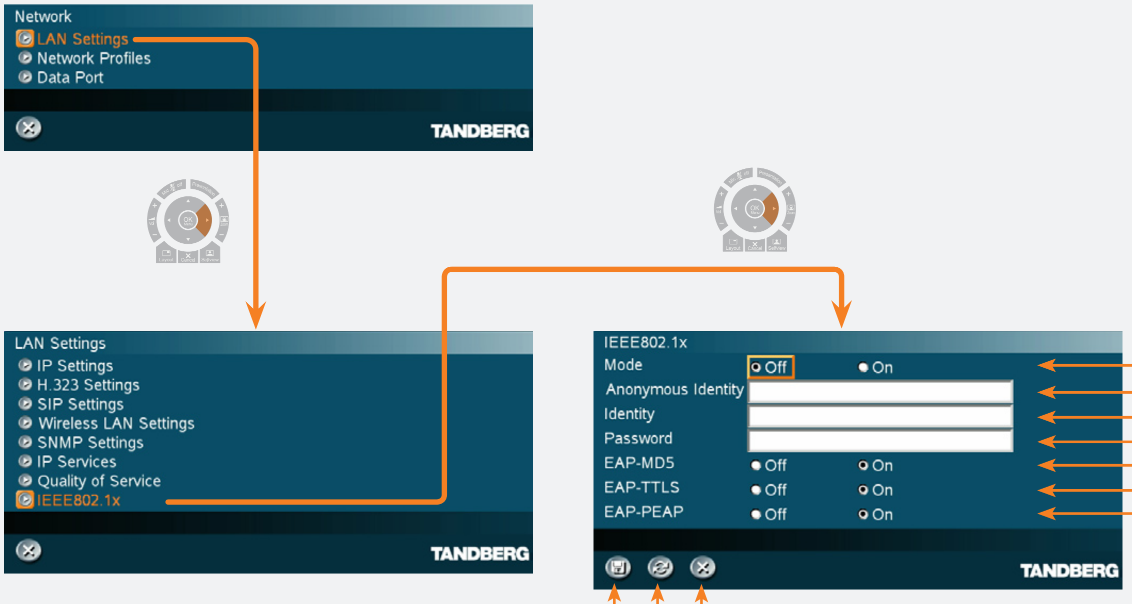
Recommended value for telephony is DiffServ Code Point (DSCP) EF, which equals the value 46.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

IEEE802.1x



MODE

The system may be connected to an IEEE 802.1x LAN network. Supported 802.1x protocols are EAP-MD5, EAP-PEAP and EAP-TTLS. The 802.1x authentication are enabled by setting 802.1x Mode to On.

On. 802.1x authentication enabled
Off. 802.1x authentication disabled

ANONYMOUS IDENTITY

The 802.1x Anonymous ID string is to be used as unencrypted identity with EAP types that support different tunneled identity, EAP-PEAP and EAP-TTLS. The anonymous ID, if set, will be used for the initial (unencrypted) EAP Identity Request.

IDENTITY

The 802.1x Username is the username needed for 802.1x authentication.

PASSWORD

The 802.1x Password is the password needed for 802.1x authentication.

EAP-MD5

On. The EAP-MD5 protocol is enabled
Off. The EAP-MD5 protocol is disabled

EAP_TTLS

On. The EAP_TTLS protocol is enabled
Off. The EAP_TTLS protocol is disabled

EAP-PEAP

On. The EAP_PEAP protocol is enabled
Off. The EAP_PEAP protocol is disabled

CANCEL

Select this icon and press OK to leave the menu undoing any changes.

RESTORE DEFAULTS

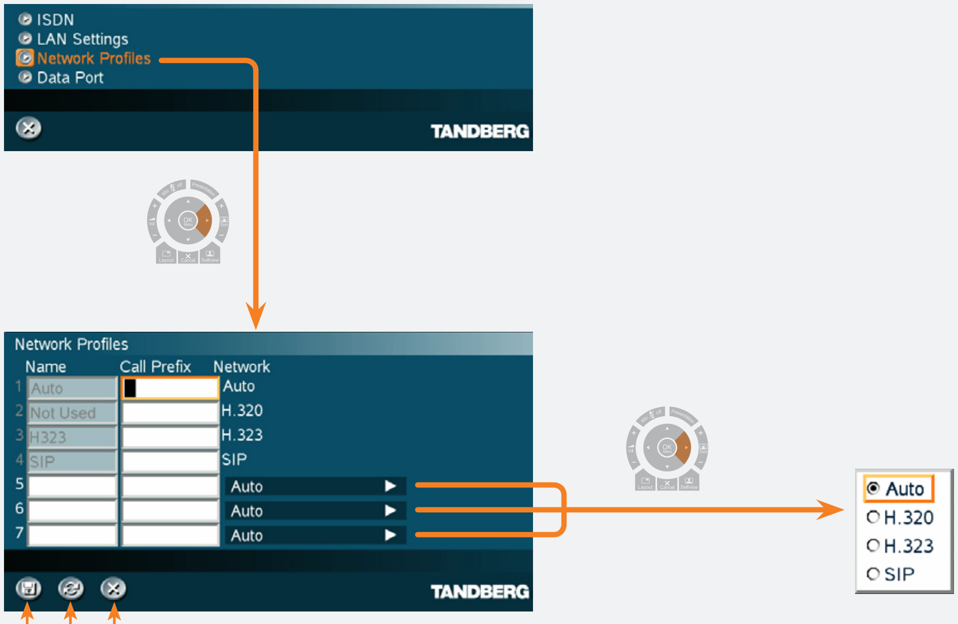
Select this icon and press OK to restore the default settings.

SAVE

Select this icon and press OK to leave the menu putting changes into effect.

Note! 802.1x wireless LAN is not supported.

Network Profiles



This menu consists of 6 network profiles (No. 2 is not in use); a prefix can be added for each profile. If you add a prefix to a profile, this prefix will automatically be added in front of the number being dialled.

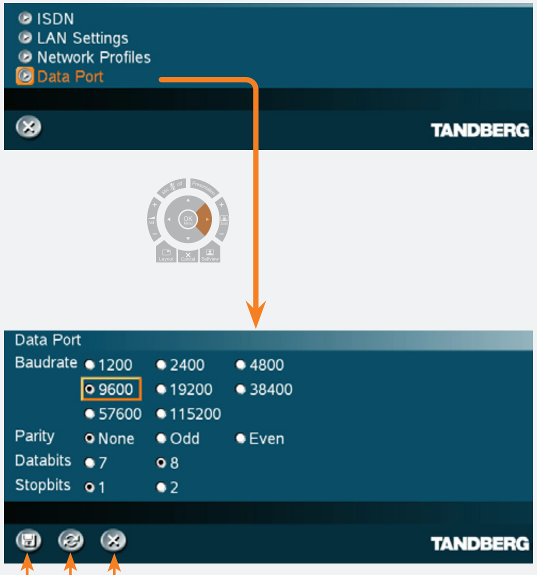
The three lower profiles. Using the profiles Nos. 5, 6, and 7 you can enter the name of a profile, prefix and network selection. Convenient if you have a fixed prefix for your service provider.

CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

Data Port



CANCEL
Select this icon and press **OK** to leave the menu undoing any changes.

RESTORE DEFAULTS
Select this icon and press **OK** to restore the default settings.

SAVE
Select this icon and press **OK** to leave the menu putting changes into effect.

DATA PORT

The system provides up to two standard RS232 serial ports to allow a computer to be connected for data transfer and control purposes. Note that when connecting to a PC, the connecting cable must be a straight through RS232 cable.

Set **Baud Rate**, **Parity**, **Databits**, and **Stopbits** as required for your application.

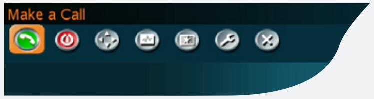
A succesful connection of a PC to Data port 1, requires that the PC and the system are identically configured.

The control interface provided by the data port supports a subset of the Hayes command set as well as a compre-hensive set of system specific commands. It maintains communication with the data port's command interpreter at all times. All features available from the hand-held remote control can be accessed through the data port.

Restore Default Settings (I)

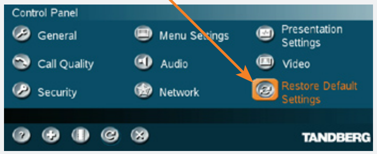
RESTORING DEFAULT SETTINGS

1. Press **OK** to produce the below menu.

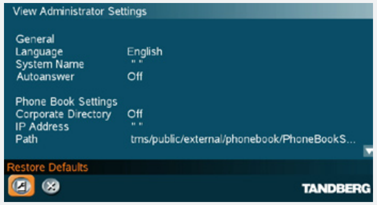


2. Use the **Arrow** keys to move to the **Control Panel** and press **OK**.

3. Use the **Arrow** keys to move to **Restore Default Settings**, if applicable. Press **OK**.



4. Whilst the **Restore Defaults** icon is highlighted press **OK** to restore the default setting. You will be prompted to confirm your intentions.



LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

The Default Settings

SystemUnit Name: “”

SystemUnit InternationalName: “”

SystemUnit DisplayName: “”

OptionKey Features: “”

OptionKey Bandwidth: “”

SerialPort 1 BaudRate: 9600

SerialPort 1 Parity: None

SerialPort 1 DataBits: 8

SerialPort 1 StopBits: 1

SerialPort 1 Mode: Control

Ethernet 1 Speed: Auto

Ethernet 2 Speed: Auto

IPProtocol: IPv4

IP Assignment: DHCP

IP Address: “127.0.0.1”

IP V6 Address: “”

IP SubnetMask: “255.255.255.0”

IP Gateway: “127.0.0.1”

IP DNS Server 1 Address: “”

IP DNS Server 2 Address: “”

IP DNS Server 3 Address: “”

IP DNS Server 4 Address: “”

IP DNS Server 5 Address: “”

IP DNS Domain Name: “”

H323Gatekeeper Discovery: Auto

H323Gatekeeper Address: “”

H323Gatekeeper Authentication Mode: Off

H323Gatekeeper Authentication ID: “”

H323Gatekeeper MultipleAlias: Off

CallManager Address: “”

H323CallSetup Mode: Direct

H323Prefix: “”

NAT Mode: Off

NAT Address: “127.0.0.1”

IPMedia MaxVideoTXRate: 1920

RTP Ports: Dynamic

RTP MTU: 1300

QoS Precedence Telephony Audio: Auto

QoS Precedence Telephony Signalling: Auto

QoS Precedence VideoTelephony Audio: Auto

QoS Precedence VideoTelephony Signalling: Auto

QoS Precedence VideoTelephony Video: Auto

QoS Precedence VideoTelephony Data: Auto

QoS Diffserv Telephony Audio: 0

QoS Diffserv Telephony Signalling: 0

QoS Diffserv VideoTelephony Audio: 0

QoS Diffserv VideoTelephony Signalling: 0

QoS Diffserv VideoTelephony Video: 0

QoS Diffserv VideoTelephony Data: 0

QoS Mode: Precedence

QoS ToS: Off

QoS RSVP: Off

NetProfile 1 Name: “”

NetProfile 1 CallPrefix: “”

NetProfile 1 CallSuffix: “”

NetProfile 1 Network: Auto

NetProfile 2 Name: “”

NetProfile 2 CallPrefix: “”

NetProfile 2 CallSuffix: “”

NetProfile 2 Network: Auto

NetProfile 3 Name: “”

NetProfile 3 CallPrefix: “”

NetProfile 3 CallSuffix: “”

NetProfile 3 Network: Auto

NetProfile 4 Name: “”

NetProfile 4 CallPrefix: “”

NetProfile 4 CallSuffix: “”

NetProfile 4 Network: Auto

Continued overleaf...

Restore Default Settings (II)

NetProfile 5 Name: “”

NetProfile 5 CallPrefix: “”

NetProfile 5 CallSuffix: “”

NetProfile 5 Network: Auto

NetProfile 6 Name: “”

NetProfile 6 CallPrefix: “”

NetProfile 6 CallSuffix: “”

NetProfile 6 Network: Auto

NetProfile 7 Name: “”

NetProfile 7 CallPrefix: “”

NetProfile 7 CallSuffix: “”

NetProfile 7 Network: Auto

SNMP Mode: On

SNMP CommunityName: “public”

SNMP SystemContact: “”

SNMP SystemLocation: “”

SNMP HostIPAddr 1: “”

SNMP HostIPAddr 2: “”

SNMP HostIPAddr 3: “”

FTP Mode: On

SSH Mode: Off

Telnet Mode: On

TelnetChallenge Mode: On

TelnetChallenge Port: 57

HTTP Mode: On

HTTPS Mode: Off

H323 Mode: On

VNC IPAddress: “”

VNC DisplayNumber: “0”

AllowLatency: Off

AlertTone Volume: 8

AlertTone VideoTelephony: 3

AlertTone Telephony: 4

Audio Microphones Mode: On

Audio AutoMute: Off

Audio Volume: 10

Audio AGC Microphones: On

Audio AGC AUX: Off

Audio AGC VCR: Off

Audio AGC Received: Off

Audio EchoControl: NoiseReduction

Audio Stereo: On

Audio VCRDucking: Off

Audio KeyTones: On

Audio Inputs Line 1 Level: 7

Audio Inputs Line 1 Mode: On

Audio Inputs Line 2 Level: 7

Audio Inputs Line 2 Mode: On

Audio Outputs Line Level: 12

Audio LocalDetection Mode: On

Video Inputs Source 1 Name: “Main Cam”

Video Inputs Source 1 Quality: Motion

Video Inputs Source 5 Name: “PC”

Video Inputs Source 5 Quality: Sharpness

Video Inputs Source 6 Name: “VNC”

Video Inputs Source 6 Quality: Sharpness

Video Inputs Source 7 Name: “HD Cam”

Video Inputs Source 7 Quality: Sharpness

Video Outputs ScreenFormatPC: 16:9

Video Outputs FormatPCWideScreen: Normal

Video Outputs DVIResolution: Auto

Video Outputs AllowHD720p: Off

Video Outputs AllowWXGA: Off

MainVideoSource: 1

DuoVideoSource: 5

StillImageSource: 1

CallVideoSource: 0

Conference DefaultCall CallRate: Auto

Conference DefaultCall NetProfile: 1

Conference H323Alias E164: “”

Conference H323Alias ID: “”

Conference SIP URI: “”

Conference H263: On

Conference H264: On

Conference G722: On

Conference G722.1: On

Conference G728: On

Conference AAC-LD: On

Conference H239: On

Conference AAC-LD-128-Threshold: 512

Conference AAC-LD-128-Mono: Off

Conference NaturalVideo: Auto

Conference PictureMode: VS

Conference VideoQualityCP: Auto

Conference FloorToFull: Off

Conference MaxCallLength: 0

Conference AllowIncomingTlphCall: On

Conference AllowIncomingMSCall: On

Conference Downspeed: On

Conference FallbackToTelephony: Off

Conference Encryption Mode: Auto

Conference Encryption Type: Auto

Conference AIM: On

Conference IPLR Transmit: On

Conference WebSnapshots: Off

Conference BillingCode: Off

Conference IPDualstreamRate: 50Percent

Conference FarTlphEchoSupression: Normal

AutoAnswer Mode: Off

Continued overleaf...

Restore Default Settings (III)

AutoAnswer Delay: 10

AutoPIP Mode: On

AutoLayout Mode: On

Screensaver Mode: On

Screensaver Delay: 10

DoNotDisturb Mode: Off

OSD Mode: On

OSD Menu Mode: On

OSD Menu Language: English

OSD Menu WelcomeMenu: On

OSD Menu DisplayWelcomeText: Off

OSD Menu WelcomeText: “”

OSD Menu DisableTimeout: Off

OSD Menu BallonHelp: On

OSD Menu InputEditor Language: Off

OSD Icon MicOff: On

OSD Icon VolumeOff: On

OSD Icon OnAir: On

OSD Icon Encryption: On

OSD Icon Warning: On

OSD Icon Telephone: On

OSD MCUStatusLine Mode: Auto

Logo: Off

SelfViewOnStartup: On

IRControl Mode: On

Streaming Port: 22232

Streaming Hops: 1

Streaming Address: “224.2.201.238”

Streaming VideoRate: 64

Streaming Announcements: On

Streaming Source: Auto

Streaming AllowRemoteStart: Off

Camera Brightness Level: 49

Camera Whitebalance Mode: Auto

Camera Whitebalance Level: 7

Camera Focus Mode: Auto

Camera Focus Level: 0

Camera Backlight: Off

FECC Mode: On

Keyboard Layout: US

LocalLayout Mode: Full

LocalLayout Toggle: POP

WLAN Mode: Managed

WLAN SSID: “”

WLAN Community: “”

WLAN Key 1: “”

WLAN Key 2: “”

WLAN Key 3: “”

WLAN Key 4: “”

UseKey: 1

WLAN Encryption: Off

WLAN Enable: On

StrictPassword: On

CorporateDirectory Mode: Off

CorporateDirectory Address: “”

CorporateDirectory Path: “tms/public/external/phonebook/PhoneBookService.asmx”

ExternalServices Mode: Off

ExternalServices Address: “”

ExternalServices Path: “tms/public/EndpointService/”

ExternalManager Address: “”

ExternalManager Path: “tms/public/external/management/SystemManagementService.asmx”

SIP Mode: Off

SIP Server Discovery: Auto

SIP Server Address: “”

SIP Server Type: NA

SIP Authentication UserName: “”

SIP Transport Default: Auto

NTP Mode: Auto

NTP Address: “”

UseAsLocalPCMonitor: Off

AutoDisplaySnapshot: On

DefaultPIPPosition: TopRight

FeedbackFilter Conference: 0

FeedbackFilter Call: 0

IdReport H323: E164Alias

Kiosk Mode: Off

Kiosk Menu: On

Kiosk LanguageMenu Mode: Off

Kiosk LanguageMenu English: On

Kiosk LanguageMenu German: Off

Kiosk LanguageMenu French: Off

Kiosk LanguageMenu Italian: Off

Kiosk LanguageMenu Norwegian: Off

Kiosk LanguageMenu Swedish: Off

Kiosk LanguageMenu Spanish: Off

Kiosk AutoDial: Off

Kiosk AllowIRControl: Off

Kiosk Phonebook: Local

IEEE802.1x Mode: Off

IEEE802.1x AnonymousIdentity: “”

IEEE802.1x Identity: “”

IEEE802.1x EAP-MD5: On

IEEE802.1x EAP-TTLS: On

IEEE802.1x EAP-PEAP: On

Time Zone: GMT

Time DateFormat: DD_MM_YY

Time TimeFormat: 24H

Time DaylightSavings: Off

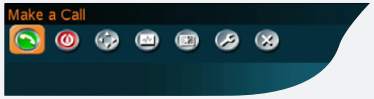
PresentationStart: Auto

PacketlossDownSpeed Mode: Auto

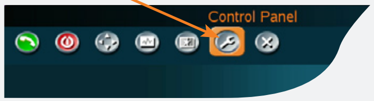
On-line User Guide

GETTING TO THIS MENU

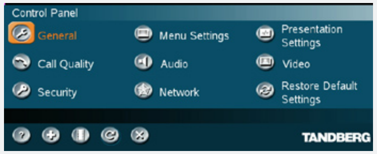
1. Press **OK** to produce the below menu.



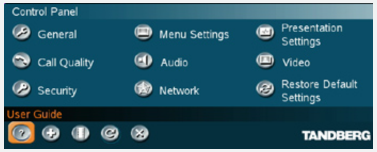
2. Use the **Arrow** keys to move to the **Control Panel**.and press **OK**.



3. The Control Panel will now be displayed

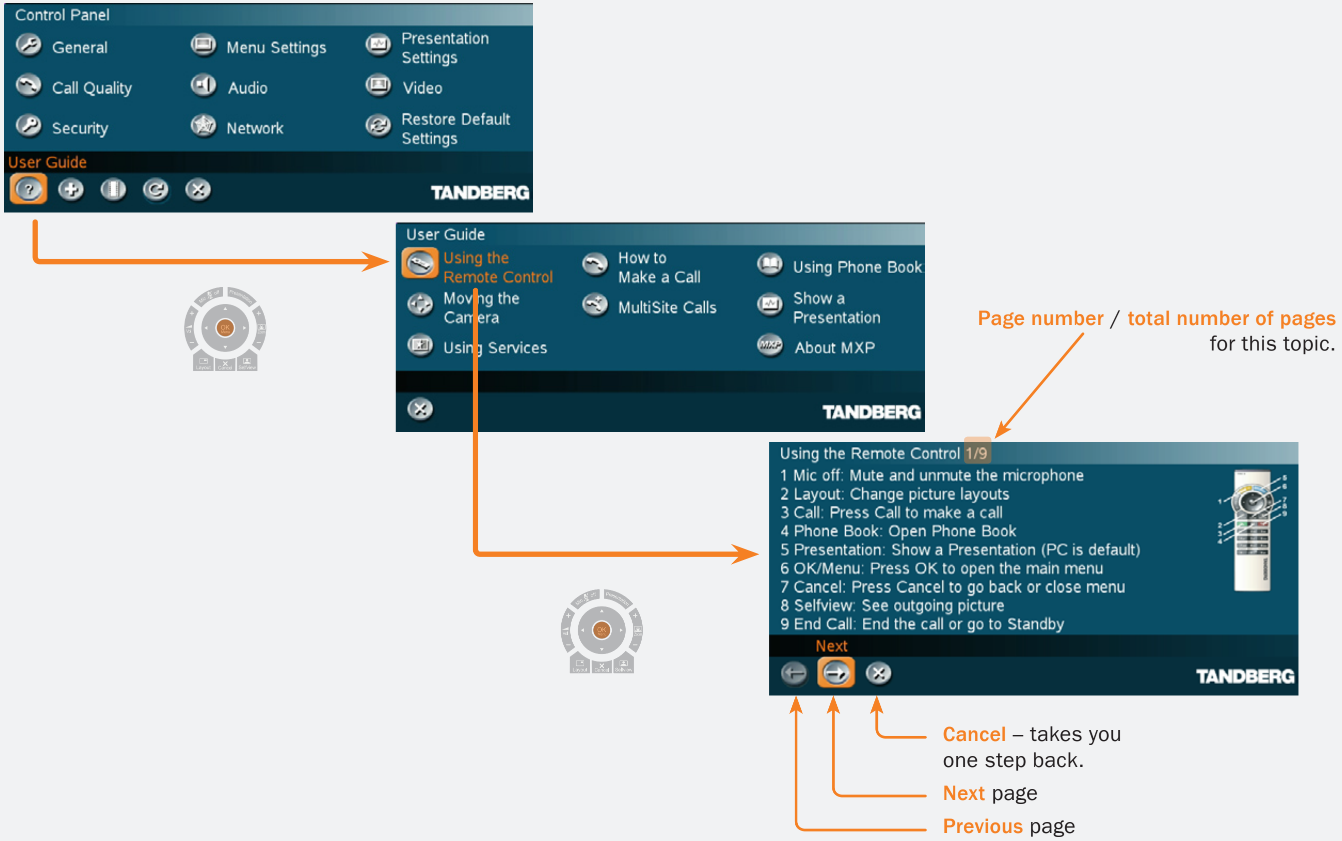


4. Use the **Arrow** keys to navigate to the **User Guide**.



LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

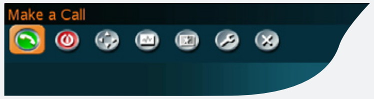
The **On-line User Guide** serves to help you when you feel stuck and time is short. It is not an exhaustive presentation of the system's features, but it comes in handy whenever you need to get yourself up and going.



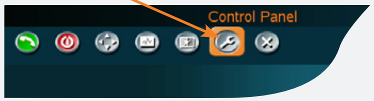
Diagnostics – an Overview

GETTING TO THIS MENU

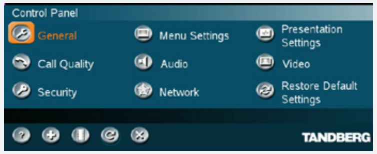
1. Press OK to produce the below menu.



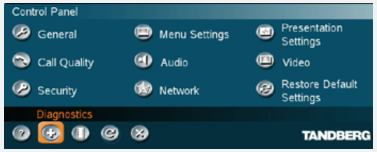
2. Use the Arrow keys to move to the Control Panel.and press OK.



3. The Control Panel will now be displayed

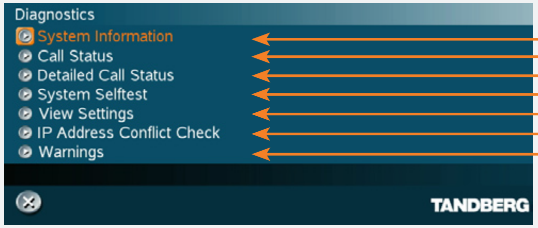


4. Use the Arrow keys to navigate to Diagnostics.



LOST IN TRANSLATION? Click on the Phone Book icon 5 times followed by pressing the number key **1** on the remote control to reset the menu language to English.

The Diagnostics allows testing of individual system components and displays the current system settings.



SYSTEM INFORMATION

Select System Information to view system numbers, line status, software version, hardware serial number and other useful information. Press arrow key up and down to scroll in the System Information list.

CALL STATUS

Comprehensive information about the call is available through the Call Status window. The menu has two columns, one for transmitted and one for received audio/video/data information. If Dual Stream or MultiSite is available on your system and in use, pressing the Vertical Arrow keys will show one page per connected site.

DETAILED CALL STATUS

Provides more detailed information on packet loss and jitter.

SYSTEM SELFTEST

The system performs a check to determine internal hardware integrity. System Selftest is useful when you want to check if your network connection is active.

VIEW ADMINSTRATOR SETTINGS

This window displays all the system settings. Use the Arrow keys on the remote control to scroll through the list.

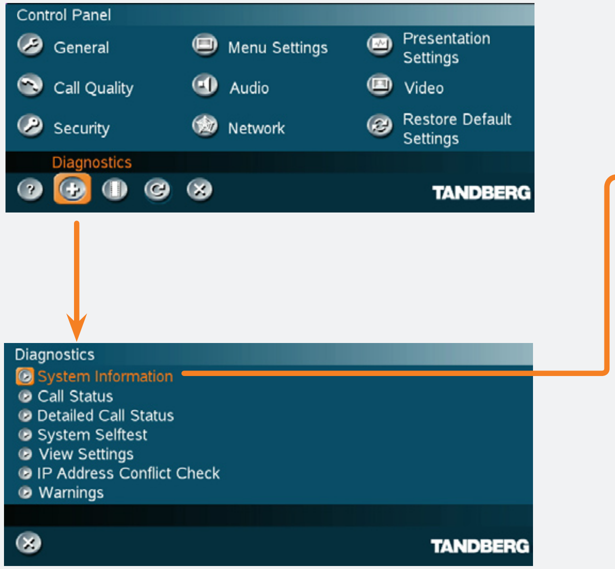
IP ADDRESS CONFLICT CHECK

The system will give a warning if there is an IP conflict. You may initiate this check by selecting IP Address Conflict Check.

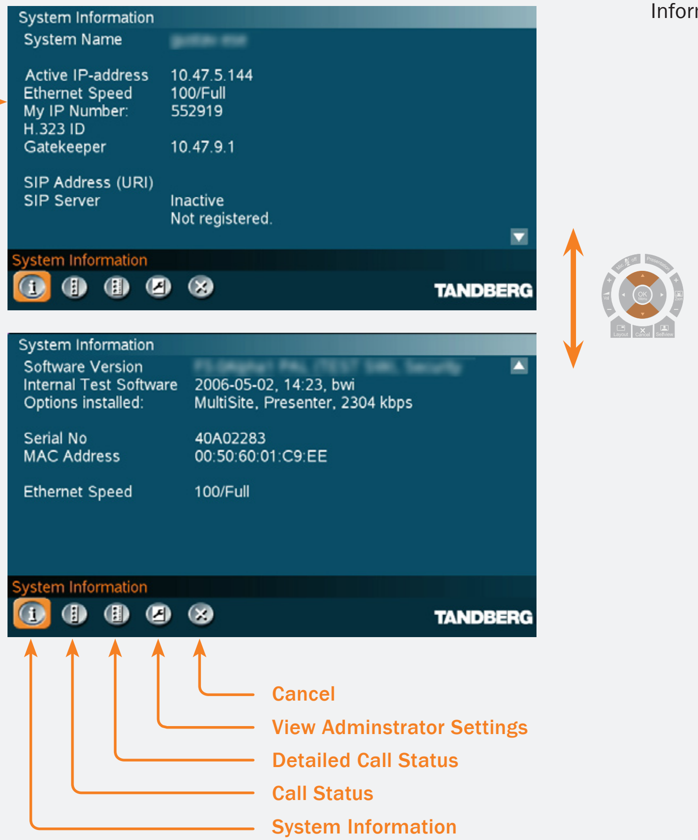
WARNINGS

Any warnings registered by the system will be displayed in the Warnings menu. Open a warning in the list to get more information about the warning.

System Information



System Information is a two-page display providing system information.



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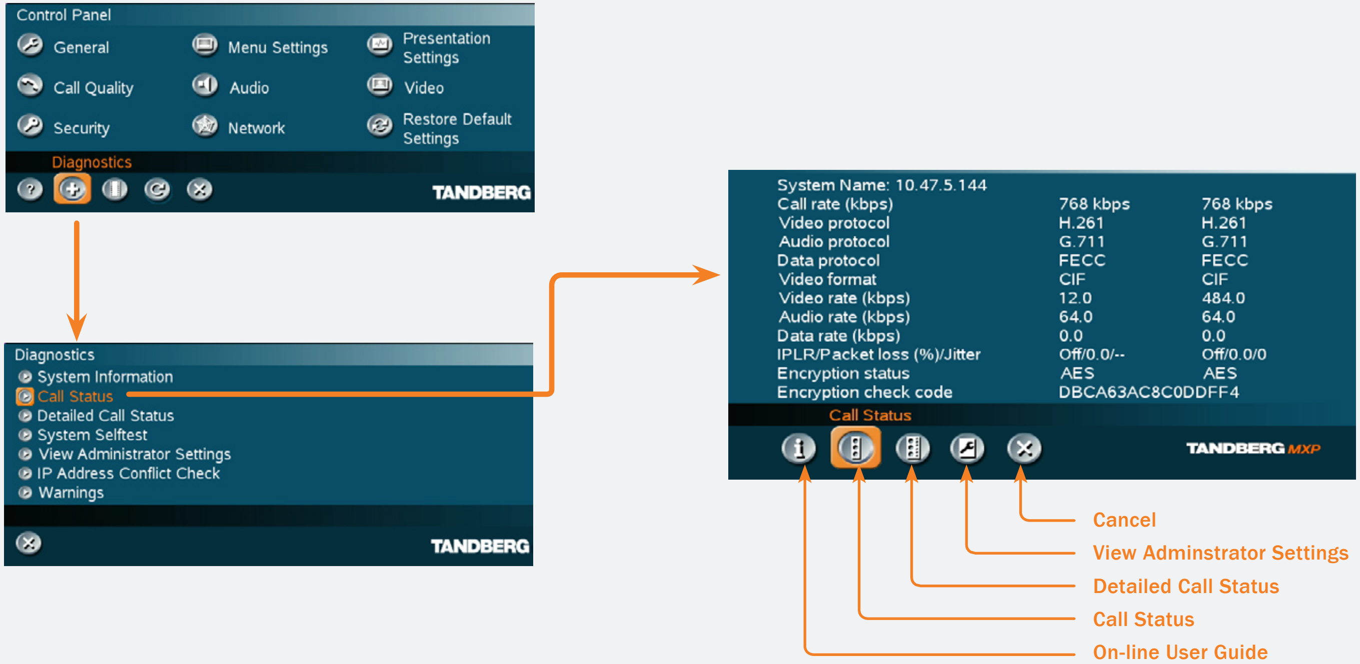

CALL STATUS

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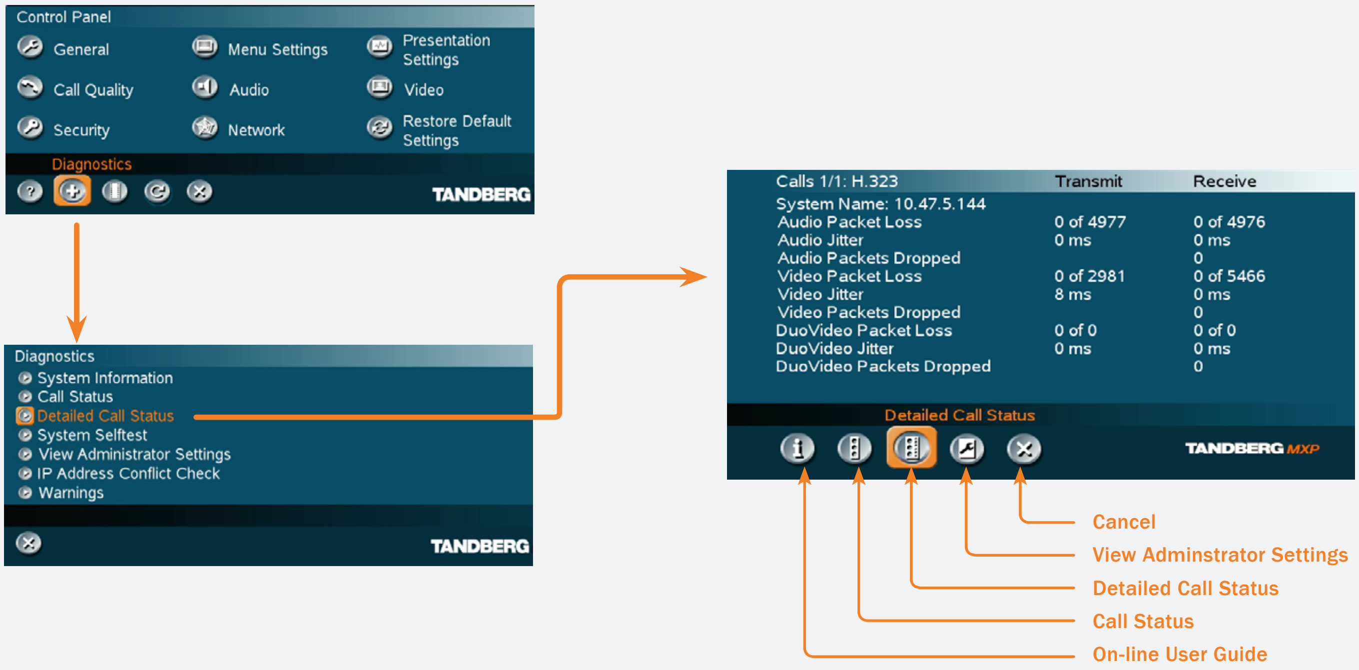
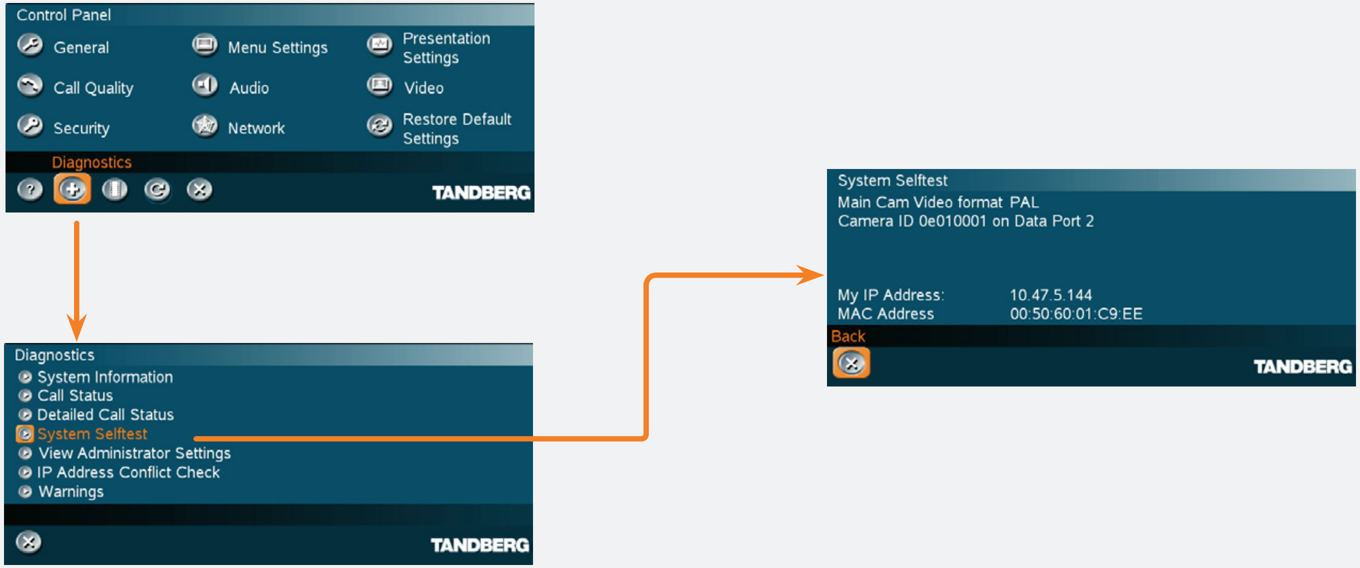
Detailed Call Status



DETAILED CALL STATUS

The detailed call status menu provides detailed information on packet loss and jitter.

System Selftest



SYSTEM SELFTEST

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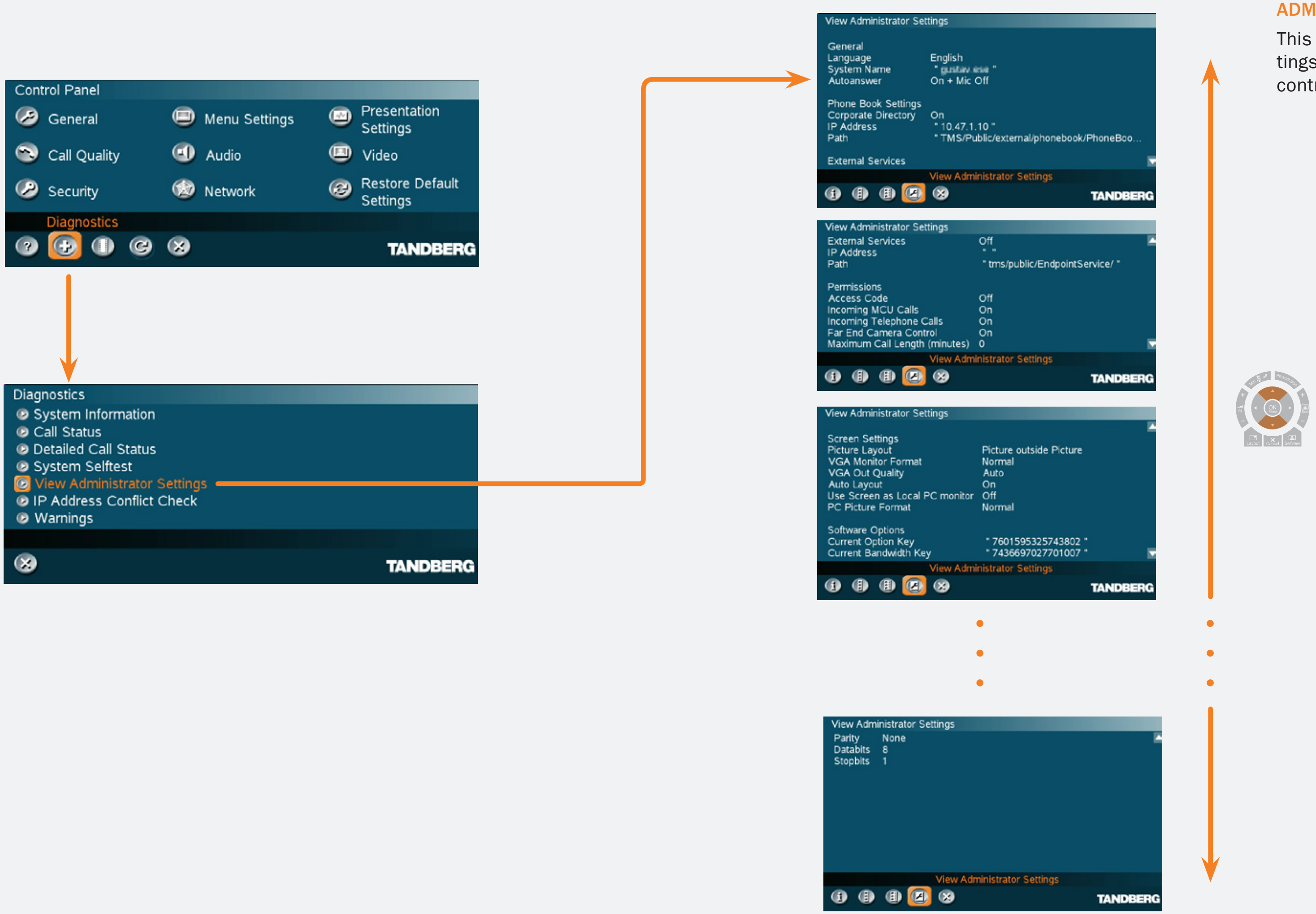
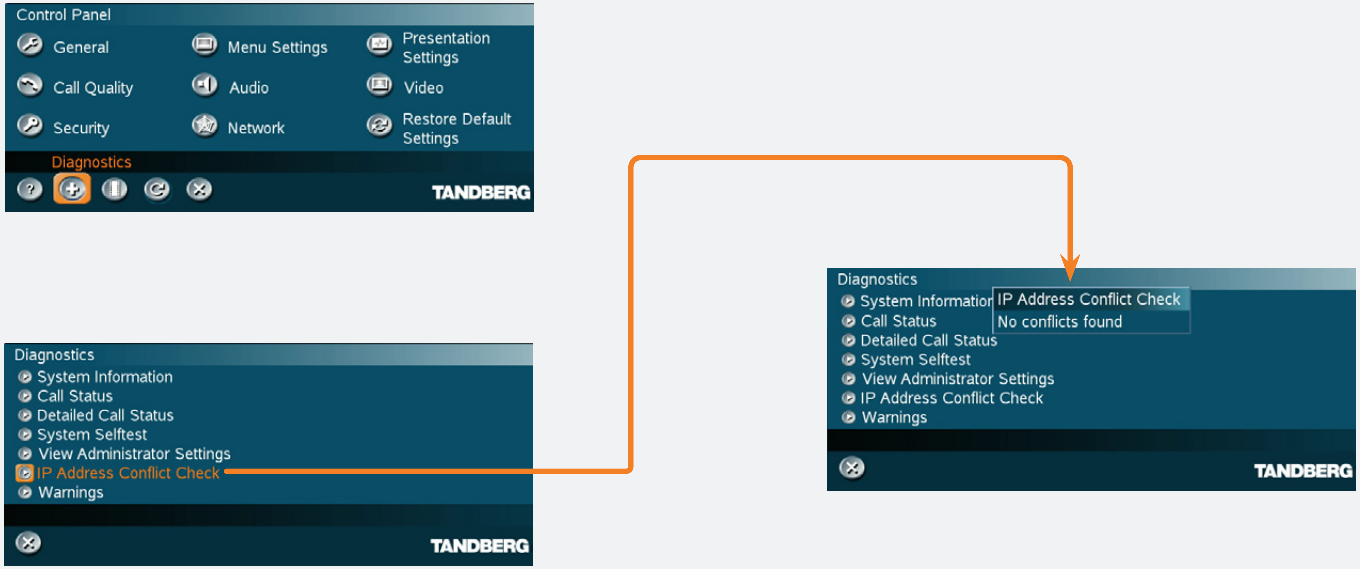
View Adminstrator Settings



ADMINSTRATOR SETTINGS

This window displays all the system settings. Use the Arrow keys on the remote control to scroll through the list.

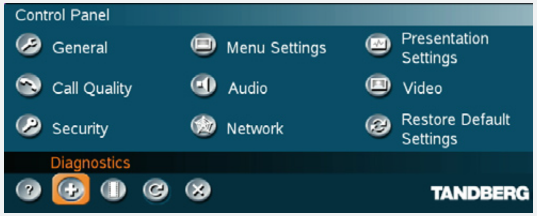
IP Address Conflict Check



IP ADDRESS CONFLICT CHECK

The system will give a warning if there is an IP conflict. Initiate this check by selecting IP Address Conflict Check.

Warnings



WARNINGS

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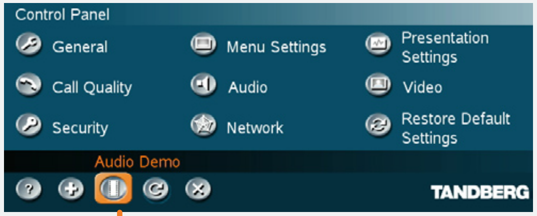
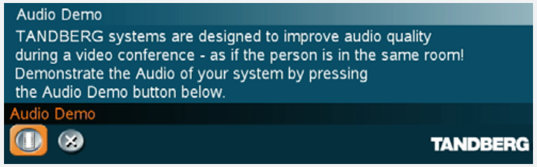
Audio Demo





AUDIO DEMO

A feature designed to demonstrate the high quality of the TANDBERG audio system.

Click on the **Audio Demo** button to demonstrate the high quality of the TANDBERG audio system.

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